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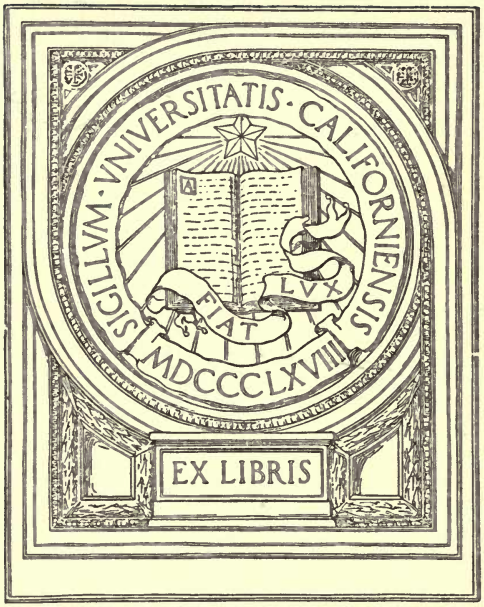

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Phalangopsis – Decticus
Cab. 1. Locustida near Blattida

Decticus – Soria
Cab. 2. over Hemipteus

Tropisa – Panoplosceles
Cab. 3 – over Elateride

CATALOGUE

OF THE

SPECIMENS

OF

DERMAPTERA SALTATORIA

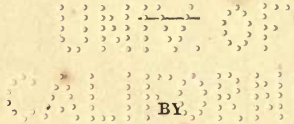
IN

THE COLLECTION

OF THE

BRITISH MUSEUM.

PART II.



BY

FRANCIS WALKER, F.L.S., &c.

PRINTED FOR THE TRUSTEES OF THE BRITISH MUSEUM:
LONDON, 1869.

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UNIV OF
CALIFORNIA

PREFACE.

The object of the present Catalogue is to give a complete List of all the genera and species of Dermaptera Saltatoria known to exist in the collections of European and American Entomologists. The letters *a*, *b*, *c*, &c., after the species, denote the specimens now contained in the British Museum, followed by the *habitat* and the mode in which each of them was obtained; and the absence of these *letters* indicates the species which are desiderata, and therefore desirable to be procured for the collection.

J. E. GRAY.

British Museum,
October, 1869.

M113826

CATALOGUE

OF

LOCUSTIDÆ.

(CONTINUED).

THE Locustidæ include several distinct families, but the division of the above group is postponed, in order to ascertain more satisfactorily the number of families, and to assign to each family every genus that it includes. Of the genera of Locustidæ in the preceding Part of the Catalogue, Deinacrida, Rhapidophora, Hadenœcus, Ceuthophyllus, Schœnobates, Udeopsylla, Daihinia, Tropidischia, Camptonotus, Macropathus, Libanasa, Machamala, Licodia, Lutosa and Lucena, may be included in the Rhapidophoridæ. The genera Cerberodon, Monocerophora, Anostotoma, Gnathoclita, Hemideina, Licola, Gryllacris, Larnaca, Stenopelmatus and Lezina, belong to the Stenopelmatidæ, to which Servillea and Cratomalus are also here referred.

Genus 26. SERVILLEA.

Servillea, *Blanch. Gay, Chili*, vi. 35.

1. SERVILLEA SPINIFERA.

spinifera, *Blanch. Gay, Chili*, vi. 36.
Chili.

Genus 27. CRATOMALUS.

Cratomalus, *Blanch. Gay, Chili*, vi. 37.

1. CRATOMALUS ARMATUS.

armatus, *Blanch. Gay, Chili*, vi. 39.
Chili.

The nine following genera form the Bradyporidæ.

Genus 28. HETRODES.

Gryllus, *Linn.*—Locusta, *Fabr.*—Hetrodes, *Fisch. A. S. E. F.* ii. 318. *Serv. Hist. Orth.* 460. *Burm. Handb. Ent.* ii. 679. *Fisch. de Wald. Orth. Ross.* 367—Bradyporus, *Serv. Rev.* 67—Barbitistes, *Brullé.*

Group 1.

1. HETRODES PUPA.

Gryllus apterus, *Linn. Amœn.* i. 322—Gryllus pupus, *Linn. Syst. Nat.* 699—Locusta pupa, *Fabr. Ent. Syst.* ii. 43. *Deg. Ins.* iii. 453, pl. 39, f. 5. *Latr. Gen.* iii. 101. *Enc. Meth.* pl. 131, f. 2—Gryllus (Tettigonia) pupa, *Stoll, Saut. et Grill.* pl. 12 a, f. 45, 46—Bradyporus pupa, *Serv. Rev.* 67. *Blanch. Hist. Nat. Ins.* iii. 28—Hetrodes pupa, *Serv. Hist. Orth.* 461. *Fisch. de Wald. Orth. Ross.* 368, pl. 34, f. 1—Locusta (Hetrodes) pupa, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 183.

a, *b*. Cape.
c. Cape. From Mr. Shuckard's collection.
d, *e*. Cape. Presented by the Lords of the Admiralty.
f. South Africa. Presented by R. Trimen, Esq.
g. South Africa.
h, *i*. Cape Verd Islands. Presented by Sir J. C. Ross.
j. ——— ? Presented by Major-Gen. Hardwicke.
k. ——— ? Presented by the Entomological Club.
l, *m*. ——— ?

2. HETRODES HORRIDUS.

——— *Edward, Aves*, viii. pl. 75—Gryllus spinulosus, *Linn. Syst. Nat.* 703; *Ed. Gmelin*, 2068—Locusta spinulosa, *Fabr. Ent. Syst.* ii. 44—Hetrodes spinulosus, *Fisch. de W. Bull. Mosc.* 1839; *Orth. Ross.* 369, pl. 34, f. 2. *Charp. Orth.* pl. 17—Hetrodes horridus, *Klug. MSS. Burm. Handb. Ent.* ii. 679—Locusta (Hetrodes) horrida, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 183.

Syria. Arabia.

3. HETRODES MARGINATUS.

Mas. *Testaceus; caput unispinosum, vertice scabro; prothorax antice scaber octodecim spinosus, postice tuberculatus quatuordecim spinosus, lateribus pallide testaceis reflexis undulatis; abdominis dorsum fulvum, e tuberculis quinque vittatum, segmentis testaceo marginatis; pedes robusti; femoribus tibiisque spinosis.*

Male. Testaceous. Head with a short obliquely ascending spine between the antennæ; vertex scabrous. Fore part of the prothorax scabrous, with four spines in the hind part of the disk, with six spines in front and with four on each side; hind part tuberculate, with two spines on the hind border and with six on each side, the lateral spines successively increasing in size towards the fore part; sides pale testaceous, reflexed, undulating. Abdomen with five rows of tubercles on the dorsum, which is

tawny, hind borders of the segments testaceous. Legs stout; femora and tibiæ keeled; four anterior femora with two spines beneath; hind femora with three spines above and with two on each side beneath; four anterior tibiæ with a few short spines on each side; hind tibiæ with six longer spines on the outer side and with seven on the inner side. Length of the body 16 lines.

The much more developed hind part of the prothorax distinguishes this species from *H. pupa*.

a. Cape. Presented by R. W. Townsend, Esq.

4. Hetrodes productus.

Fœm. *Testaceus; caput unispinosum, vertice aspere punctato, fronte subtiliter punctata; prothorax scaber, antice sexdecim spinosus, postice quatuordecim spinosus; abdomen e tuberculis septem vittatum; oviductus subarcuatus, abdomine paullo longior.*

Female. Testaceous. Head roughly punctured above, finely punctured in front, with a short oblique spine between the antennæ. Prothorax scabrous; fore part with four spines on the hind part of the disk, with four spines in front, and with four longer spines on each side; hind part with two spines on the hind border and with six on each side like those of *H. marginatus*. Dorsum of the abdomen minutely tuberculate, with seven rows of tubercles, the tubercles in the middle row and in the second row on each side larger than the others. Oviduct slightly curved, a little longer than the abdomen. Legs stout; femora and tibiæ keeled; four anterior femora with two spines beneath; hind femora with five spines above and with four on each side beneath, the first and second of the latter very minute; spines of the tibiæ like those of *H. marginatus*. Length of the body 21 lines.

It may be a variety of *H. pupa*. The oviduct is a little longer.

a. Congo. Presented by Sir J. Richardson.

5. Hetrodes abbreviatus.

Fœm. *Testaceus; caput unispinosum, rude punctatum; prothorax subscaber, antice sexdecim spinosus, postice quatuordecim spinosus; abdomen e tuberculis trivittatum; oviductus perparum arcuatus, abdomine multo brevior; pedes robusti, spinosi, femoribus posticis supra quadrispinosis subtus utrinque bispinosis.*

Female. Testaceous. Head roughly punctured, with a short oblique spine between the antennæ. Prothorax slightly scabrous; fore part with four spines on the hind part of the disk, with four in front and with four on each side; hind part with two spines on the hind border and with six on each side like those of *H. marginatus*. Abdomen with three rows of tubercles, the middle tubercles larger than those on each side. Oviduct very slightly curved, serrated at the tip, much shorter than the abdomen. Legs stout; femora and tibiæ keeled; four anterior femora with spines beneath; hind femora with four spines above and with two on each side beneath; four anterior tibiæ like those of the preceding species; hind tibiæ with four spines on each side. Length of the body 19 lines.

The less tuberculate abdomen, the shorter oviduct and the fewer spines on the hind tibiæ distinguish it from *H. pupa*.

a. South Africa. Presented by Sir A. Smith.

6. Hetrodes macrurus.

Fœm. *Testaceus; caput unispinosum, vertice scabro, fronte transverse subtiliter rugulosa; prothorax scaber, antice octodecim spinosus, postice duodecim spinosus; abdomen quinqueseriatim spinulosum; oviductus corpore æquilongus; pedes robusti, spinosi.*

Female. Testaceous. Head scabrous above, transversely and finely rugulose in front; a short oblique spine between the eyes. Prothorax scabrous; fore part with four spines on the hind part of the disk, with four in front and with five on each side, the hindmost on each side very small; hind part with two spines on the hind border, and with five on each side, the lateral spines successively increasing in size towards the fore part. Abdomen with five rows of spines, the middle spines and those in the second row on each side larger than the others. Oviduct as long as the body. Legs stout; four anterior femora with one spine on each side near the tip, these spines hardly apparent in the fore femora; hind femora with four spines above, with two on the outer side beneath and with three on the inner side, the first on the inner side very small; four anterior tibiæ much like those of *H. pupa;* hind tibiæ with five spines on the outer side and with six on the inner side. Length of the body 18 lines.

The longer oviduct distinguishes it from *H. pupa* and from *H. productus*.

a. ———?

Group 2.

7. Hetrodes Petersii.

Petersii, *Schaum, Monats. Berl. Acad.* 1853, 777.

Mozambique.

a—d. East Africa. Presented by Earl Russell.
e. East Africa. Presented by Capt. Speke.

8. Hetrodes militaris.

militaris, *White, Methuen's Wanderings in the Wilderness, Appendix.*

a, b. South Africa, near the Tropic of Capricorn. From Mr. Pearson's collection.

9. Hetrodes cervinus.

Locusta (Hetrodes) cervina, *Klug, Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 183.

Cape.

10. Hetrodes diademata.

diademata, *Stal, Ofv. K. V. Ak. Forh.* xv. 308.

South Africa.

11. Hetrodes fortis.

Mas. *Testaceus, fusco nebulosus; caput unispinosum, vertice scabro; prothorax scaber, quadrispinosus cornubusque duobus trispinosis armatum, postice tridecim spinosus, lateribus pallide testaceis; abdomen triseriatim spinosum; tibiæ bispinosæ.*

Male. Testaceous, partly tinged with brown. Head above and prothorax scabrous. Head with a rather long slightly ascending spine between the antennæ. Fore part of the prothorax with a directly diverging spine on each side hindward, with two spines on the fore border, which on each side has a long protuberance armed with three spines; hind part with three spines on the hind border and with six on each side; four of the lateral spines long; sides pale testaceous, slightly reflexed. Abdomen with three dorsal rows of spines. Legs long; femora without spines; tibiæ with two spines beneath. Length of the body 15 lines.

It is much allied to *H. militaris;* the two typical specimens of the latter appear to be in an early stage of growth. It is distinguished from *H. cervinus* by the two red stripes on the abdomen, by the fewer spines on the hind part of the prothorax, and by the hind tibiæ, which have no spines above.

a. South Africa. Presented by Sir A. Smith.

12. Hetrodes vittatus.

Mas. *Testaceus; caput scabrum, unispinosum, fronte nigricante; prothorax scaber, antice decimspinosus nigro quadrivittatus cornubus duobus trispinosis armatus, postice octospinosus; abdomen sexseriatim spinosum, nigro trivittatum; pedes robusti, brevisculi, tibiis quatuor anterioribus trispinosis, tibiis posticis quinquespinosis.*

Male. Testaceous. Head and prothorax scabrous. Head with a porrect acute rather long spine between the eyes; front mostly blackish. Prothorax with the usual transverse middle furrow; fore part with six obtuse spines in the disk, with a spine on each side, with two spines on the fore border, where there are also two exterior obliquely diverging horns, each armed with three spines; four black stripes, the inner pair very slender, the outer pair very broad; hind part with eight marginal spines. Abdomen with six rows of spines and with three black stripes, the outer pair irregular. Legs stout, rather short; femora without spines; tibiæ with three spines beneath; hind tibiæ with two spines above. Length of the body 12—14 lines.

The striped body will distinguish it from the preceding species of this group. The shorter legs will distinguish it from *H. fortis* and from *H. militaris*, and the spine on the head is longer than that of *H. Petersii.*

a. Interior of South Africa. Presented by the late Earl of Derby.
b. South Africa. Presented by Sir A. Smith.

Group 3.

13. Hetrodes longipes.

longipes, *Charp. Orth.* pl. 8.

Var. Female. Pale testaceous, rather long and slender. Head and prothorax very finely punctured. Head with a very short spine between the eyes and with a few small irregular black marks. Antennæ blackish, testaceous at the base. Prothorax elongate, with a transverse middle furrow; fore part with three black spines and a black patch on each side, and with an abbreviated black stripe; hind part mostly black, with two black spines on each side and with two on the hind border, which is slightly elevated. Oviduct very short, with a black tip; sheaths with three black spines above. Legs long, slender, piceous, with whitish keels; femora with from one to three spines beneath; fore femora above testaceous, mottled with piceous. Length of the body 18 lines.

a—d. Congo. Presented by Sir J. Richardson.

14. Hetrodes Guyoni.

Hetrodes (Eugaster) Guyoni, *Serv. Hist. Orth.* 464. *Lucas, Exp. Sci. Alg. Orth.* pl. 2.

Algiers.

15. Hetrodes abortivus.

Hetrodes (Eugaster) abortiva, *Serv. Hist. Orth.* 463. *Guér. Voy. Abyss.* 338.

Senegal. Abyssinia.

16. Hetrodes Servillei.

Hetrodes (Eugaster) Servillei, *Guér. Lefebvre Voy. Abyss.* 338.

Abyssinia.

17. Hetrodes erinaceus.

Hetrodes (Eugaster) erinaceus, *Fairm. Arch. Ent.* ii, 260, pl. 9, f. 1.

Gabon.

18. Hetrodes discoidalis.

Mas. *Testaceus; caput subtiliter punctatum, vertice subscabro; antennæ nigræ, basi testaceæ; prothorax antice sexspinosus plus minusve nigricans aut niger, postice sexspinosus; abdomen nigro bivittatum aut nigrum testaceo conspersum; pedes longi, tibiis tarsisque piceis, illis spinosis.*

Male. Testaceous. Head finely punctured; vertex slightly scabrous. Mandibles with blackish tips. Antennæ black, testaceous at the base, nearly twice the length of the body. Prothorax with a reflexed border and a transverse middle furrow; fore part blackish on each side or almost wholly black, with three black spines on each side and with two testaceous spines on the hind border. Abdomen above with two black stripes, or black

with testaceous speckles. Legs long; femora unarmed; tibiæ and tarsi piceous; fore tibiæ with six spines on each side; middle tibiæ with rather fewer spines; hind tibiæ with some spines in three rows. Length of the body 11 lines.

a, *b*. South Africa. From Dr. Dohrn's collection.

19. Hetrodes crassipes.

Mas. *Fulvus, crassus; caput punctatum, unispinosum; antennæ nigræ, basi fulvæ; prothorax antice bispinosus cornubus duobus trispinosis, postice viginti spinosus, lateribus quadrispinosis; abdomen piceum; pedes crassi, nigro vittati, tibiis anticis trispinosis, tibiis quatuor posterioribus quadrispinosis.*

Male. Tawny, very stout. Head punctured, with a short obliquely ascending spine between the eyes. Antennæ black, tawny at the base. Prothorax rugose, abruptly declining on each side; four transverse furrows, of which the hinder one is deeper than the others; fore border with two very short spines and with two lateral very short horns, each armed with three short black-tipped spines; four spines on each side; hind border rounded, slightly reflexed, with twenty black-tipped spines, the spines on each side much longer than those in the middle. Abdomen piceous above. Legs thick; femora and tibiæ striped with black; femora unarmed; fore tibiæ with three small black-tipped spines beneath; four posterior tibiæ with four spines beneath; tarsi black beneath. Length of the body 19 lines.

a. South Africa. From Mr. Bartlett's collection.

Group 4.

20. Hetrodes pallidus.

Mas. *Pallide luteus, subtilissime punctatus; palpi apice nigri; antennæ piceæ, basi pallide luteæ; prothorax antice quadrispinosus, postice sexspinosus; pedes longi, femoribus transverse sulcatis, tibiis spinosis.*

Female. Pale luteous. Head and prothorax very finely punctured. Palpi and mandibles with black tips. Eyes reddish. Antennæ piceous, pale luteous towards the base, more than twice the length of the body. Prothorax with a middle furrow and with black-tipped spines; fore part with two spines on each side; hind part with two spines on each side and with two on the hind border, which is elevated. Legs long; femora and tibiæ keeled; femora transversely and slightly furrowed; four anterior tibiæ with six spines beneath; hind tibiæ with several spines in three rows. Length of the body 14 lines.

a. East Africa. Presented by Earl Russell.

Genus 29. LESINA.

Mas. Corpus robustum, subtilissime punctatum. Caput spina antica subascendente armatum; vertex subreticulatus; frons erecta. Prothorax transverse bisulcatus, antice subtuberculatus, lateribus extensis attenuatis spinosis, margine postico ascendente spinoso. Pedes spinosi, sat robusti.

Male. Body stout. Head and prothorax very finely punctured. Head as broad as the prothorax (excepting the dilated disk of the latter), with a slightly ascending spine between the eyes; vertex slightly reticulated; front perpendicular. Eyes very prominent. Prothorax bisellate, or divided into three compartments; first and second parts thinly tuberculate, dilated, attenuated and armed with slender spines on each side; third part elevated, with spines along the hind border. Abdomen tapering, narrower and much longer than the prothorax. Legs rather stout, moderately long; four anterior femora with stout, rather long spines, three rows of these on the fore femora, two on the middle femora; hind femora with two rows of short slender spines; fore tibiæ with a few spines in two rows; middle tibiæ with four rows of more numerous spines.

This genus is most allied to the first section of *Hetrodes*.

1. Lesina lutescens.

Mas. *Pallide lutea; prothorax nigro bivittatus et bimaculatus, lateribus bis dilatatis et quinquespinosis, margine postico quadrispinoso.*

Male. Testaceous or pale luteous. Mandibles blackish. Eyes pale. Each of the two anterior compartments of the prothorax armed with five spines on each side; middle part with two black stripes and two exterior black spots in the disk; hind part much elevated, with four long spines. Length of the body 11 lines.

a. Amboina. From M. Parzudaki's collection.

Genus 30. CALLIMENUS.

Locusta, *Ill.*—Ephippiger, *Lefebvre*—Bradyporus, *Charp. Hor. Ent. Latr. Fisch. de Waldh. Orth. Ross.* 216. *Serv. Orth.* 497. *Blanch. Hist. Nat. Ins.* iii. 27—Callimenus, *Stéven, Fisch. de Waldh. A. S. E. F.* ii. 318. *Burm. Handb. Ent.* ii. 676. *Fisch. Orth. Eur.* 203.

1. Callimenus oniscus.

Gryllus (Tettigonia) nympha, *Stoll, Saut. et Gryll.* pl. 11, f. 44—Ephippiger macrogaster, *Lefeb. Guér. Mag. Zool.* i. pl. 5, f. 1—Bradyporus oniscus, *Charp. Germ. Zeitsch.* i. 2, 377; iii. 315, 74; *Orth.* pl. 7. *Fisch. de Waldh. Orth. Ross.* 217, pl. 7, f. 1, 2—Bradyporus dasypus, *Serv. Rev.* 67; *Hist. Orth.* 499. *Brullé. Exp. Morée.* 88. *Orth.* pl. 29, f. 7. *Blanch. Hist. Nat. Ins.* iii. 28—Callimenus obesus, *Stéven, Fisch. de Waldh. A. S. E. F.* ii. 318—Callimenus oniscus, *Burm. Handb. Ent.* ii. 677. *Fisch. Orth. Eur.* 202, pl. 11, f. 3.

a. Turkey. From Dr. Frivaldsky's collection.
b. Athens. Presented by — Merlin, Esq.
c. South Europe. Presented by Mrs. Mauger.

2. Callimenus restrictus.

Bradyporus restrictus, *Fisch. de Waldh. Orth. Ross.* 219, pl. 7, f. 3—Callimenus restrictus, *Fisch. Orth. Eur.* 203—oniscus?

South Russia.

3. Callimenus dasypus.

Locusta armaditto, *Thunb. Mem. Acad. St. Petersb.* v. 284—Locusta dasypus, *Illig. Wied. Arch.* i. 144; ii. 230—Bradyporus dasypus, *Charp. Hor. Ent.* 96; *Orth.* pl. 8; *Germ. Zeitsch.* i. 2, 377—Callimenus dasypus, *Burm. Handb. Ent.* ii. 677. *Fisch. Orth. Eur.* 204, pl. 11, f. 4.

Hungary.

Genus 31. BRADYPORUS.

Bradyporus, *Charp. Fisch. Orth. Eur.* 205.

1. Bradyporus Onos.

Gryllus Onos, *Pallas, Spicil.* ix. 17, pl. 2, f. 1—Locusta Onos, *Fabr. Ent. Syst.* ii. 44. *Latr. Hist. Nat.* xii. 131—Bradyporus Onos, *Burm. Handb. Ent.* ii. 678—Deracantha cincta, *Fisch. de W. Bull. Mosc.* vi. 375—Ephippiger Onos, *Fisch. de W. Orth. Ross.* 190, pl. 25, f. 2.

Siberia.

2. Bradyporus granulatus.

Ephippiger granulatus, *Fisch. de W. Bull. Mosc.* xii. 105, pl. 3, f. 1, 2; *Orth. Ross.* 191, pl. 20, f. 1, 2.

Altai Mts.

3. Bradyporus cinctus.

Deracantha cincta, *Fisch. de W. Bull. Mosc.* vi. 376—Ephippiger cinctus, *Fisch. de W. Orth. Ross.* 192, pl. 9, f. 1.

Siberia.

4. Bradyporus Camelus.

Deracantha Camelus, *Fisch. de W. Bull. Mosc.* vi. 375—Ephippiger Camelus, *Fisch. de W. Orth. Ross.* 193, pl. 9, f. 3.

Daouria.

5. Bradyporus Antilope.

Deracantha Antilope, *Fisch. de W. Bull. Mosc.* vi. 376—Ephippiger Antilope, *Fisch. de W. Orth. Ross.* 194, pl. 9, f. 4, 5.

Siberia.

6. Bradyporus spinosus.

Ephippiger spinosus, *Fisch. de W. Orth. Ross.* 195, pl. 27, f. 2.

Siberia.

7. Bradyporus Vacca.

Ephippiger Vacca, *Fisch. de W. Orth. Ross.* 197, pl. 25, f. 1.

Siberia.

8. Bradyporus verrucosus.

Ephippiger verrucosus, *Fisch. de W. Orth. Ross.* 199, pl. 25, f. 3.

Daouria.

9. Bradyporus Aranea.

Deracantha Aranea, *Fisch. de W. Bull. Mosc.* vi. 375—Ephippiger Aranea, *Fisch. de W. Orth. Ross.* 200, pl. 9, f. 6.

Daouria.

10. Bradyporus Taurus.

Ephippiger Taurus, *Eversm. Bull. Mosc.* 1859, 128.

Kirgis Steppes.

Genus 32. ONCONOTUS.

Locusta, *Fabr.*—Gryllus, *Pallas*—Ephippiger, *Fisch. de Waldh.* (olim)—Bradyporus, *H.-Sch.*, *Charp*, *Burm. Handb. Ent.* ii. 677—Onconotus, *Fisch. de Waldh. Bull. Nat. Mosc.* 1839; *Orth. Ross.* 201. *Fisch. Orth. Eur.* 208.

1. Onconotus Servillei.

Bradyporus Laxmanni, *H. Sch. Cont. Panz. Faun. Ins. Germ. Fasc.* 156, pl. 18—Onconotus Servillei, *Fisch. de Waldh. Orth. Ross.* 204, pl. 25, f. 4, 5. *Fisch. Orth. Eur.* 208, pl. 11, f. 8.

South Russia.

2. Onconotus Eversmanni.

Eversmanni, *Fisch. de Waldh. Orth. Ross.* 205, pl. 31, f. 8. *Fisch. Orth. Eur.* 210.

South Russia.

3. Onconotus Boschnakii.

Boschnakii, *Fisch. de Waldh. Orth. Ross.* 208, pl. 31, f. 6. *Fisch. Orth. Eur.* 210.

South Russia.

4. Onconotus marginatus.

Locusta marginata, *Fabr. Ent. Syst. Suppl.* 193—Bradyporus marginatus, *Charp. Hor. Ent.* 97. *Burm. Handb. Ent.* ii. 678—Onconotus marginatus, *Fisch. Orth. Eur.* 210.

South Russia.

5. Onconotus Laxmanni.

Locusta Laxmanni, *Fabr. Ent. Syst.* ii. 45—Gryllus Laxmanni, *Pallas, Spicil. Zool. Fasc.* ix. 20, pl. 2, f. 2, 3—Bradyporus Laxmanni, *Charp. Hor. Ent.* 97. *Burm. Handb. Ent.* ii. 677. *Fisch. de Waldh. Orth. Ross.* 203, pl. 9, f. 7.

Siberia.

6. Onconotus Motschulskii.

Motschulskii, *Fisch. de Waldh. Orth. Ross.* 206, pl. 31, f. 7.

Caucasus.

7. Onconotus coriaceus.

coriaceus, *Motsch. Fisch. de Waldh. Orth. Ross.* 207, pl. 31, f. 9.

Caucasus.

Genus 33. PYCNOGASTER.

Pycnogaster, *Graells, Mem. Real. Acad. Cien. Madrid*, i. 2, 155. *Fisch. Orth. Eur.* 205—Ephippiger, *Burm. Hand. Ent.* ii. 677—Barbitistes, *Charp.*—Bradyporus, *Ramb.*

1. Pycnogaster inermis.

Bradyporus inermis, *Ramb. Faune And.* 57, pl. 4, f. 1, 2—Pycnogaster jugicola, *Graells, Mem. R. Acad. C. Madrid.* 1, 2, 155—Pycnogaster inermis, *Fisch. Orth. Eur.* 206, pl. 11, f. 5, 6.

Spain.

2. Pycnogaster cucullata.

Bradyporus cucullatus, *Charp. Hor. Ent.* 98—Ephippigera cucullata, *Burm. Handb. Ent.* ii. 680—Pycnogaster cucullata, *Fisch. Orth. Eur.* 207, pl. 11, f. 7.

Hungary. Portugal. Algeria.

Genus 34. BARBITISTES.

Barbitistes, *Charp. Hor. Ent.* 98. *Brullé, Blanch. Hist. Nat. Ins.* iii. 28. *Ramb. Faune And.* 53. *Serv. Hist. Orth.* 477. *Fisch. Orth. Eur.* 211—Ephippiger, *Serv. Rev.*

1. Barbitistes Bæticus.

Barbitistes Bætica, *Ramb. Faun. And.* 54, pl. 3, f. 1, 2—Bæticus, *Fisch. Orth. Eur.* 211, pl. 12, f. 1.

South Spain.

Genus 35. EPHIPPIGER.

Locusta, *Fabr., Rossi, Kollar.*—Ephippiger, *Latr. Fam. Nat. Ramb. Serv. Hist. Orth.* 473. *Fisch. de W. Orth. Ross.* 188. *Blanch. Hist. Nat. Ins.* iii. 28—Barbitistes, *Charp. Hor. Ent.* 99. *Brullé, Hist. Nat.*—Ephippigera, *Burm. Handb. Ent.* ii. 679. *Fisch. Orth. Eur.* 212.

1. Ephippiger perforatus.

Locusta perforata, *Rossi, Faun. Etr.* i. 267, pl. 8, f. 3, 4—Ephippigera vespertina? *L. Duf. Rech.* 347—Ephippigera perforata, *Fisch. Orth. Eur.* 213, pl. 4, f. 7.

Italy.

2. Ephippiger vitium.

Gryllus ephippiger, *Fiebig. Schrift. Berl. Gesell. Naturf. Fr.* v. 160, pl. 3, f. 6—8—Locusta ephippiger, *Fabr. Ent. Syst.* ii. 44. *Panz. Faun. Germ.* 33, f. 3. *Latr. Hist. Nat.* xii. 135; *Gen.* iii. 101. *Panz. Faun.* 33, 3—Barbitistes ephippiger, *Charp. Horæ Ent.* 99—

Ephippiger vitium, *Serv. Rev.* 68; *Hist. Orth.* 474 — Ephippigera perforata, *Burm. Handb. Ent.* ii. 680 (ex parte)—Ephippigera diurna, *L.-Duf. Rech.* 347—Ephippigera vitium, *Fisch. Orth. Eur.* 213, pl. 10, f. 2—4.

a. France. From Prof. Westwood's collection.
b. Naples. Presented by Sir J. Bowring.
c. Italy. Presented by Dr. Leach.

3. EPHIPPIGER LIMBATUS.

Ephippigera limbata, *Fisch. Orth. Eur.* 216, pl. 10, f. 7.

Illyria.

4. EPHIPPIGER USTULATUS.

Ephippiger ustulatus, *Ramb. Faune And.* 525, pl. 4, f. 3, 4—Ephippigera ustulata, *Fisch. Orth. Eur.* 216, pl. 10, f. 8.

Spain.

5. EPHIPPIGER SELLIGER.

Barbitistes selliger, *Charp. Hor. Ent.* 99—Ephippiger scabricollis, *Ramb. Faune And.* 51—Ephippiger Andalusius? *Ramb. Faune And.* 49, pl. 3, f. 3, 4—Ephippigera selligera, *Fisch. Orth. Eur.* 217, pl. 10, f. 11.

Portugal. Spain.

a—c. Tunis. From Mr. Fraser's collection.

6. EPHIPPIGER ELEGANS.

Ephippigera elegans, *Fisch. Orth. Eur.* 219, pl. 10, f. 13.

Italy.

7. EPHIPPIGER RUGOSICOLLIS.

Barbitistes autumnalis, *Brullé, Hist. Nat. Ins.* ix. 155, pl. 15, f. 3—Ephippiger rugosicollis, *Ramb. MSS., Serv. Hist. Orth.* 475—Ephippigera rugosicollis, *Fisch. Orth. Eur.* 221.

South France. Sardinia.

8. EPHIPPIGER MONTICOLA.

monticola, *Ramb. MSS. Serv. Hist. Orth.* 476—Ephippigera monticola, *Fisch. Orth. Eur.* 221.

South France.

9. EPHIPPIGER ZELLERI.

Ephippigera Zelleri, *Fisch. Orth. Eur.* 220, pl. 10, f. 14.

Italy.

Sect. —?

10. EPHIPPIGER ORNATUS.

Ephippigera ornata, *Schmidt, Haidinger Berichte Mostheil. Fr. Naturwiss. Wien.* vi. 184.

Carniolia.

11. Ephippiger dorsalis.

dorsalis, *Charp.*, *Brullé*, *Exp. Sci. Morée*, pl. 29, f. 8—Drymadusa spectabilis, *Stein*, *Berl. Ent. Zeit.* iv. 257, pl. 5.

Greece.

12. Ephippiger maculatus.

maculata, *Yersin*, *A. S. E. F.* viii. 517.

Sicily.

13. Ephippiger terrestris.

terrestris, *Yersin*, *Bull. Soc. Vaudoise*, 1854.

South France.

14. Ephippiger provincialis.

provincialis, *Yersin*, *Bull. Soc. Vaudoise*, 1854.

South France.

15. Ephippiger Idomenæi.

Idomenæi, *Lucas*, *Rev. Zool.* 1854, vi. 165.

Crete.

16. Ephippiger pachygaster.

pachygaster, *Lucas*, *Expl. Alg. Orth.* pl. 2, f. 2.

Algeria.

17. Ephippiger costaticollis.

costaticollis, *Lucas*, *Expl. Alg. Orth.* pl. 2, f. 3.

Algeria.

18. Ephippiger laticollis.

laticollis, *Lucas*, *Expl. Alg. Orth.* pl. 2, f. 4.

Algeria.

19. Ephippiger nigromarginatus.

nigromarginata, *Lucas*, *Expl. Alg. Orth.* pl. 2, f. 5.

Algeria.

20. Ephippiger latipennis.

Ephippigera latipennis, *Fisch. Orth. Eur.* 215, pl. 10, f. 5.

Algeria.

21. Ephippiger compressicollis.

Ephippigera compressicollis, *Fisch. Orth. Eur.* 215, pl. 10, f. 6.

Algeria.

22. Ephippiger brevicollis.

Ephippigera brevicollis, *Fisch. Orth. Eur.* 219, pl. 10, f. 12.

Algeria.

23. Ephippiger trilineatus.

Ephippiger trilineata, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 185. Tripoli.

24. Ephippiger varicornis.

varicornis, *Klug*, *MSS. Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 185. Syria.

Sect. n.

Mas. Corpus crassum. Caput inter antennas bituberculatum, antice erectum et aspere punctatum. Oculi globosi. Palporum articulus 4us 3o non brevior; 5us 4o multo longior. Prothorax postice angustior, lateribus subundulatis, margine postico subascendente, carinis lateralibus distinctis. Abdomen prothorace fere duplo longius. Pedes crassi, tibiis quatuor anterioribus femoribusque biseriatim spinosis, tibiis posticis quadriseriatim spinosis. Alæ abdominis dimidio non longiores.

Male. Body very stout. Head as broad as the prothorax, with two little porrect protuberances between the antennæ; front and face erect, roughly punctured. Eyes prominent. Palpi truncated at the tips; fourth joint of the maxillary as long as the third; fifth subclavate, much longer than the fourth; third joint of the labial clavate. Prothorax narrower hindward; sides slightly undulating; hind border slightly elevated; lateral keels determinate. Abdomen nearly twice the length of the prothorax. Legs thick; femora with a few very minute spines on each side beneath; four anterior tibiæ with six spines on each side beneath; hind tibiæ with four rows of several spines; tarsi short. Wings about half the length of the abdomen. *Female.*—Oviduct straight, a little longer than the body. Wings much shorter than those of the male.

25. Ephippiger australis.

Mas. *Cinereus; vertex fascia nigra postice incisa; frons fulva; prothorax fasciis tribus latis rufescente nigris; abdomen rufescente nigrum, ventre pectoreque fulvis.* Fœm.—*Obscurior; prothoracis vitta latiores, posticæ connexæ.* Var. β.—*Testacea; vertex albido tessellatus.*

Male. Cinereous. Head with a speckled black band on the vertex, this band irregularly excavated along the hind border; front tawny. Mandibles blackish. Prothorax with three broad undulating reddish black bands, the lateral pair nearly interrupted. Pectus tawny. Abdomen reddish black; ventral segments tawny. Fore wings partly blackish. *Female.*—Darker. Stripes of the prothorax broader, connected hindward. Oviduct and fore wings tawny. *Var.* β.—Testaceous above. Vertex tessellated with whitish. Prothorax without stripes. Fore wings brown. Length of the body 12—14 lines.

a. Swan River. Presented by Sir J. Richardson.
b. Swan River. From Dr. Bacon's collection.
c. Swan River. From Mr. Turner's collection.

Genus 36. ANABRUS.

Anabrus, *Hald. Stansb. Expl. Utah.* 372.

1. Anabrus simplex.

simplex, *Hald. Stansb. Expl. Utah*, 372, pl. 10, f. 4.

Utah.

2. Anabrus Haldemanii.

Haldemanii, *Girard, Marcy. Expl. Red River, Ed.* 1853, 259, pl. 15, f. 5—8; *Ed.* 1854, 248.

Red River.

3. Anabrus purpurascens.

purpurascens, *Uhler, Proc. Ent. Soc. Phil.* ii. 550.

Minnesota. Washington. Texas.

a—c. Red River. Presented by F. Walker, Esq.

Each of the two following genera will form a section in the family.

Genus 37. ACRIPEZA.

Acripeza, *Guérin, Voy. Coquille, Zool.* ii. 2, 153. *Brullé, Hist. Nat. Ins.* ix. *Serv. Hist. Orth.* 546. *Blanch. Hist. Nat.* iii. 27—Acridopeza, *Burm. Handb. Ent.* ii. 683.

1. Acripeza reticulata.

reticulata, *Guér. Voy. Coquille, Zool.* ii. 2, 153; *Atlas, Ins.* pl. 10, f. 2. *Brullé, Hist. Nat. Ins.* ix. 153, pl. 14, f. 2, 3. *Serv. Hist. Orth.* 547. *Blanch. Hist. Nat. Ins.* iii. 27—Acridopeza reticulata, *Burm. Handb. Ent.* ii. 683.

a, b. Australia. From Mr. Damel's collection.
c, d. Australia. From Mr. Argent's collection.
e. Australia. From Mr. Shuckard's collection.
f, g. Australia. From Mr. Children's collection.
h, i. Australia. Presented by R. Bakewell, Esq.
j, k. Moreton Bay. Presented by — Gibbons, Esq.
l. Moreton Bay. Presented by J. R. Elsey, Esq.
m, n. Tasmania. From Mr. A. J. Smith's collection.
o. Tasmania. From Dr. Hooker's collection.
p. Tasmania. Presented by R. Butler, Esq.

Genus 38. HYPEROMALA.

Hyperomala, *Serv. Rev.* 66; *Hist. Orth.* 544. *Boisd. Voy. Astrolabe, Ent.*

1. Hyperomala speciosa.

Phyllophora speciosa, *Thunb. Nov. Ins. Sp.* v. 286, pl. 3. *Burm. Handb. Ent.* ii. 694—Hyperomala virescens, *Serv. Rev.* 66; *Hist. Orth.* 545.

Boisd. Voy. Astrolabe, Ent. pl. 10, f. 1. *Brullé, Hist. Nat. Ins.* ix. 142, pl. 13, f. 2.

Australia. New Zealand.

a. Ceram. From Madame Ida Pfeiffer's collection.

The limited family of Locustidæ commences with the following genus:—

Genus 39. ODONTURA.

Odontura, *Ramb. Faune And.* 44. *Fisch. Orth. Eur.* 223—Locusta, *Fabr.*—Barbitistes, *Charp., H.-Sch., Burm. Handb. Ent.* ii. 682. *Serv., De Borck, Wesm., Kollar. Fisch. de Waldh.* (*Orth. Ross.*)—Leptophyes, *Fieb.*—Ephippigera, *Steph.*—Olynthoscelys, *Fisch. de W. Bull. Nat. Mosc.* 1839.

Sect. 1. PŒCILEMON, *Fisch.*

1. Odontura superba.

superba, *Fisch. Orth. Eur.* 225, pl. 12, f. 4.

Naples.

2. Odontura lævissima.

lævissima, *Fisch. Orth. Eur.* 225, pl. 12, f. 5.

Sicily.

4. Odontura flavescens.

Barbitistes flavescens, *H.-Sch., Panz. Faun. Ins. Germ.* 157, pl. 14—Odontura flavescens, *Fisch. Orth. Eur.* 226, pl. 12, f. 6.

Russia.

4. Odontura tessellata.

tessellata, *Fisch. Orth. Eur.* 227, pl. 12, f. 7.

Switzerland.

Sect. 2.

5. Odontura Oeskayi.

Barbitistes Oeskayi, *Charp. Nov. Act. Ac. Nat. Cur.* 1850, xxii. 2, pl. A—Odontura Oeskayi, *Fisch. Orth. Eur.* 228, pl. 12, f. 8.

Illyria.

6. Odontura serricauda.

Locusta serricauda, *Fabr. Ent. Syst. App.* iv. 455; *Suppl.* 193. *Hagenb. Symb. Faun. Fasc.* i. 23, f. 12, 13—Ephippiger serricauda, *Serv. Rev.* 69—Barbitistes serricauda, *Serv. Hist. Orth.* 479. *Charp. Hor. Ent.* 101. *Burm. Handb. Ent.* ii. 681. *Fisch. de Waldh. Orth. Ross.* 210, 358, pl. 25, f. 6, 7—Odontura serricauda, *Fisch. Orth. Eur.* 228, pl. 12, f. 10, 11.

a. Germany. From Prof. Westwood's collection.

7. ODONTURA PYRENEA.

Barbitistes Pyrenea, *Ramb. MSS. Serv. Hist. Orth.* 481—Odontura Pyrenæa, *Fisch. Orth. Eur.* 230, pl. 12, f. 12.

Pyrenees. Sardinia.

8. ODONTURA SPINULICAUDA.

spinulicauda, *Ramb. Faune And.* 45, pl, 5, f. 2, 3—*Fisch. Orth. Eur.* 230, pl. 12, f. 13.

Spain. Sardinia.

a, *b*. Algeria. From Prof. Westwood's collection.

9. ODONTURA ASPERICAUDA.

aspericauda, *Ramb. Faune And.* 47, pl. 5, f. 1. *Fisch. Orth. Eur.* 231, pl. 12, f. 14.

Andalusia.

10. ODONTURA FISCHERI.

Fischeri, *Yersin, Bull. Soc. Vaud.* 1854.

South France.

11. ODONTURA PUNCTATISSIMA.

Locusta punctatissima, *Bosc. Ann. Soc. Hist. Nat. Paris*, i. 45, pl. 10, f. 5, 5—Locusta autumnalis, *Hagenbach, Symb. Faun. Ins. Helvet.* 27, f. 14—Barbitistes autumnalis, *Charp. Hor. Ent.* 102—Barbitistes punctatissima, *Serv. Hist. Orth.* 480. *De Borck, Rätving Ins.* 66, pl. 3, f. 1—Ephippigera virescens, *Steph. Ins. Brit. Mand.* vi. 11—Odontura punctatissima, *Fisch. Orth. Eur.* 232, pl. 12, f. 15—Barbitistes camptoxypha, *Fieb. Kelch. Orth.* 3.

a, *b*. England. Presented by J. C. Dale, Esq.
c—*h*. England. From Mr. Stephens' collection.
i, *j*. Paris. From Prof. Westwood's collection.

12. ODONTURA ALBOVITTATA.

Barbitistes albovittatus, *Kollar, Beitr*, 76—Barbitistes (Leptophyes) punctatissima (albolineata) *Fieb. Kelch. Orth.* 3—Barbitistes autumnalis, *H.-Sch. Nomencl.* 14—Barbitistes glabricauda? *De Borck, Rätving Ins.* 65, pl. 3, f. 1—Barbitistes foliicauda? *Motsch. Fisch. de Waldh. Orth. Ross. Suppl.* 359, pl. 33, f. 9, 10—Odontura albovittata, *Fisch. Orth. Eur.* 233, pl. 12, f. 16.

Germany. Russia.

Sect. —?

13. ODONTURA GLABRICAUDA.

Barbitistes glabricauda, *Charp. Hor. Ent.* 101—Odontura glabricauda, *Fisch. Orth. Eur.* 234.

Portugal.

14. Odontura sanguinolenta.

Barbitistes sanguinolentus, *Motsch. Fisch. de Waldh. Orth. Ross. Suppl.* 358, pl. 33, f. 7—Odontura sanguinolenta, *Fisch. Orth. Eur.* 234, pl. 12, f. 17.

Tauria.

15. Odontura vittata.

Barbitistes vittatus, *Motsch. Fisch. de W. Orth. Ross. Suppl.* 359, pl. 33, f. 8—Odontura vittata, *Fisch. Orth. Eur.* 234, pl. 12, f. 18.

South Russia.

16. Odontura pulchripennis.

pulchripennis, *Costa, Atti, Accad. Scienze Napoli.* i. 25, pl. 1, f. 6, 7.

Calabria.

Odontura? (larva).

Centrophorus spinosus, *Fisch de W. Orth. Ross.* 361, 362, pl. 33, f. 11.

Crimea.

17. Odontura capensis.

Fœm. *Viridis, brevis; caput antice nitens; oculi parvi, globosi; prothoracis carinæ laterales flavescentes, nigricante strigatæ; oviductus arcuatus, apice spinosus, abdominis triente brevior; tibiæ posticæ quadriseriatim spinosæ.*

Female. Grass-green, stout, short. Head shining in front, as broad as the prothorax, narrow and not prominent between the eyes, where there is a transverse suture between the vertex and the front; the latter is erect and there is a distinct transverse suture between it and the face. Eyes small, prominent. Prothorax with the lateral keels yellowish, well defined, each with three short blackish streaks; sides rounded; hind border nearly straight. Abdomen fusiform. Oviduct broad, curved, with spines towards the tip, less than one-third of the length of the abdomen. Legs slender; four anterior tibiæ minutely setose; hind tibiæ with four rows of numerous minute black-tipped spines. Length of the body 6½ lines.

The oviduct is much shorter than that of *O. serricauda* and of *O. spinulicauda.*

a. South Africa. Presented by Sir A. Smith.

Genus 40. CYRTASPIS.

Cyrtaspis, *Fisch. Orth. Eur.* 235—Barbitistes, *Charp.*—Odontura, *Ramb.*

1. Cyrtaspis scutata.

Barbitistes scutatus, *Charp. Hor. Ent.* 102—Cyrtaspis scutata, *Fisch. Orth. Eur.* 235, pl. 11, f. 11.

Portugal.

Genus 41. GAMPSOCLEIS.

Locusta, *Herbst*, *Philippi*.—Decticus, *Burm. Fisch. de W.*—Gampsocleis, *Fieb. Kelch. Orth. Schles.* 5; *Fisch. Orth. Eur.* 254.

1. Gampsocleis glabra.

Locusta glabra, *Herbst*, *Fussby. Arch.* 8, 193. *Philippi*, *Orth. Ber.* 22, pl. 1, f. 1—maculata, *Charp. Hor. Ent.* 122, pl. 3, f. 5—Decticus glaber, *Burm. Handb. Ent.* ii. 713—Decticus maculatus, *Fisch. de W. Bull. Mosc.* vi. 372; *Orth. Ross.* 158, pl. 4, f. 4, 5—Decticus Alberti? *Seidl. Weit. Beitr. Nat. Heilk.* i. 215—Gampsocleis maculata, *Fieb. Kelch. Orth. Schl.* 2—Gampsocleis glabra, *Fisch. Orth. Eur.* 255, pl. 13, f. 18.

Germany.

Var.? Female. Testaceous, smooth, shining. Head and prothorax with a blackish stripe, which is intersected by a testaceous line and with two lateral blackish stripes. Head prominent and rounded in front of the antennæ; front oblique, narrow towards the vertex; face broad, short. Eyes rather large, not prominent. Fourth joint of the maxillary palpi a little shorter than the third; fifth subclavate, longer than the third. Antennæ very slender. Prothorax with the lateral keels well defined, the deflexed part on each side much dilated in the middle, occupied except along the border by the blackish stripe; hind part slightly narrower and rounded. Abdomen ferruginous, lanceolate, nearly twice the length of the prothorax, testaceous beneath. Cerci lanceolate. Oviduct much curved upward, nearly as long as the abdomen. Legs slender, femora and four anterior tibiæ striped with brown; four anterior tibiæ with five spines on each side and with two or three above; hind femora and hind tibiæ very long; hind femora incrassated for half the length from the base; hind tibiæ with four rows of numerous very minute spines and with four long apical spurs. Fore wings as long as the prothorax. Hind wings shorter. Length of the body 9 lines.

a. Elba. Presented by Sir W. Trevelyan, Bart.

2. Gampsocleis gratiosa.

gratiosa, *Watt. Orth. Voy. Novara*, *Lucas*, *A. S. E. F.* 1865. *Bull.* xv.

China.

Genus 42. PTEROLEPIS.

Locusta, *Charp.*—Decticus, *Burm. Handb. Ent.* ii. 709. *H.-Sch.*—Pterolepis, *Ramb. Faune And.* 59. *Serv. Hist. Orth.* 491. *Fisch. Orth. Eur.* 256.

1. Pterolepis spoliata.

spoliata, *Ramb. Faune And.* 60, pl. 5, f. 4, 5. *Fisch. Orth. Eur.* 257, pl. 13, f. 19.

South Spain.

2. Pterolepis spinibarbis.

spinibarbis, *Fisch. Orth. Eur.* 258, pl. 13, f. 20.

Portugal.

3. Pterolepis Germanica.

Decticus Germanicus, *H.-Sch. Nomencl. Ent.* ii. 13—Pterolepis germanica, *Fisch. Orth. Eur.* 259.

Carinthia.

4. Pterolepis modesta.

modesta, *Fisch. Orth. Eur.* 259, pl. 13, f. 22.

Italy.

5. Pterolepis pedestris.

Locusta pedestris, *Fabr. Ent. Syst.* ii. 45. *Charp. Hor. Ent.* 118. *Latr.? Hist. Nat.* xii. 134?—Pterolepis armillata? *Serv. Hist. Orth.* 494—Pterolepis pedestris, *Fisch. Orth. Eur.* 260, pl. 24.

South Europe.

6. Pterolepis alpina.

alpina, *Yersin, A. S. E. F.* 1857. *Bull.* clxi; 1858, vi. 111, pl. 4.

Alps.

7. Pterolepis Brisoutii.

Brisoutii, *Yersin, A. S. E. F.* viii. 517.

Sicily.

8. Pterolepis Raimondii.

Raimondii, *Yersin, A. S. E. F.* viii. 517.

Hyeres.

9. Pterolepis neglecta.

neglecta, *Costa, Atti, Accad. Scienze Napoli.* i. 27, pl. 1, f. 11, 12.

Calabria.

Genus 43. OCHRIDA.

Mas. Corpus læve, sat robustum. Caput prothorace perpaullo angustius, carinula antica; frons non obliqua. Oculi elliptici, valde globosi. Palporum articulus 3us 4o longior; 5us subclavatus; 3o longior. Antennæ gracillimæ, corpore multo longiores. Prothorax subcompressus, postice angustior et carinatus, carinis lateralibus indeterminatis, lateribus valde rotundatis, margine postico subrotundato. Abdomen compressum. Femora apices versus magis carinata; femora antica quadrispinosa; femora intermedia septemspinosa; femora postica biseriatim spinosa; tibiæ quadriseriatim spinosæ. Alæ abdominis dimidio vix longiores.

Male. Body smooth, moderately stout, not shining. Head very little narrower than the prothorax, with a slight keel on the fore part of the vertex; front erect. Eyes elliptical, very prominent. Third joint of the maxillary palpi longer than the fourth, shorter than the fifth, which is sub-

clavate. Antennæ very slender, much longer than the body. Prothorax slightly compressed; fore border straight; lateral keels not apparent; sides much rounded; hind part narrower, elongated, keeled, with a slightly rounded hind border. Abdomen compressed. Legs moderately stout; femora with the keels beneath deeper towards the tips; fore femora with a single row of four spines, of which the first and the second are extremely small; middle femora with a row of seven spines, six minute, the seventh larger; hind femora with two rows of numerous small spines, and with two larger spines near the tips; fore tibiæ and middle tibiæ with a few small spines on the four keels; hind tibiæ with numerous spines on the two keels above, and with a few very minute spines on the two keels beneath. Wings full half the length of the abdomen.

1. Ochrida annulipes.

Mas. *Viridis; caput albo plagiatum, vertice fusco; palpi testacei, albido varii; antennæ fuscæ, basi virides; prothorax macula antica triangulari fusca luteo marginata, lateribus albidis roseo pallido variis, spatio postico ferrugineo nigro-marginato; abdomen apicem versus fuscum segmentis testaceo unimaculatis, segmentis ventralibus pallide rufis; pedes fusco fasciati, femoribus anticis fuscis cinereo unifasciatis basi viridibus; alæ rufescente fuscæ.*

Male. Green. Head with some white patches; vertex brown, with a darker longitudinal streak on each side. Eyes lurid. Palpi testaceous, partly whitish. Antennæ brown, green towards the base. Prothorax with a brown triangular spot adjoining the fore border and bordered on each side with luteous; sides whitish, tinged with pale rose-colour; hind part ferruginous, bordered with black. Abdomen towards the tip brown, with a large testaceous spot on each segment; ventral segments pale red. Fore femora brown, green at the base and with an irregular pale cinereous band beyond the middle; middle femora brown at the tips; hind femora with two brown bands; four anterior tibiæ with two brown bands, one basal, the other apical; hind tibiæ with four brown bands; tarsi brown, fourth joint testaceous. Wings dark reddish brown. Length of the body 10 lines.

a. Australia. From Mr. Damel's collection.

Genus 44. OCICA.

Fœm. Corpus convexum, subfusiforme. Caput breve, prothorace paullo angustius, cornu antico brevi gracili porrecto sulcato; frons non obliqua. Oculi rotundi, valde globosi. Palporum articulus 3us 4o valde longior; 5us sublinearis, 3o valde longior. Antennæ graciles, corpore multo longiores. Prothorax subtiliter rugulosus, disco fere plano, transverse bisulcato, margine antico rotundato, lateribus valde rotundatis, margine postico subrecto. Sternum sexspinosum. Oviductus arcuatus, abdomini æquilongus. Pedes sat graciles, femoribus quatuor anterioribus sexspinosis, femoribus posticis et tibiis quatuor anterioribus biseriatim spinosis; tibiis posticis quadriseriatim spinosis. Alæ anticæ coriaceæ, convexæ, deflexæ, abdominis apicem attingentes.

Female. Body convex, nearly fusiform. Head smooth, a little narrower than the prothorax, with a short slender porrect furrowed horn on

the fore part of the vertex; front erect. Eyes round, very prominent. Third joint of the maxillary palpi much longer than the fourth; fifth nearly linear, much longer than the third. Antennæ slender, much longer than the body. Prothorax finely rugulose, nearly flat in the disk, with two transverse furrows, the fore one straight, the hinder one slightly curved; fore border rounded; sides much rounded; hind border nearly straight. Prosternum with a long spine on each side; mesosternum and metasternum with a short spine on each side. Oviduct curved upward, as long as the abdomen. Legs rather slender; four anterior femora with a single row of six minute spines; hind femora with two rows of several minute spines and with two apical spurs; four anterior tibiæ with two rows of short and slender spines; hind tibiæ with four rows of minute spines. Fore wings coriaceous, deflexed, extending to the tip of the abdomen.

1. Ocica lutescens.

Fœm. *Pallide lutea; prothorax viridi quadrimaculatus; alæ anticæ margine anteriore nigro.*

Female. Pale luteous. Eyes fawn-colour, with a black stripe. Prothorax with two green spots on each side, two near the fore border and two on the hind border. Hind knees and tips of the spines black. Fore wings with a black inner border. Length of the body 12 lines.

a. Ovalou, Fiji Isles. From the Voyage of H. M. S. 'Herald.'

Genus 45. THYREONOTUS.

Thyreonotus, *Serv. Hist. Orth.* 495. *Fisch. Orth. Eur.* 256.

1. Thyreonotus corsicus.

Pterolepis corsica, *Ramb. Faune And.* 60—Thyreonotus corsicus, *Serv. Hist. Orth.* 497—*Fisch. Orth. Eur.* 256.

Corsica.

2. Thyreonotus? dorsalis.

Ephippigera dorsalis? *Brullé, Exp. Sci. Morée*, 89, pl. 29, f. 8.

Greece.

3. Thyreonotus pachymerus.

Decticus pachymerus, *Burm. Handb. Ent.* ii. 712—Thyreonotus pachymerus, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 453.

United States.

4. Thyreonotus dorsalis.

dorsalis, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 454.

United States.

5. Thyreonotus semiæneus.

semiæneus, *Serv. Hist. Orth.* 496.

Cape.

The spines on the hind femora distinguish the following section from the typical species of the genus.

Sect. II.

Fœm. Corpus robustum, glabrum, nitens, apterum. Caput prothorace paullo angustius, vertice antico lato porrecto rotundato, fronte subobliqua. Oculi parvi, non globosi. Palporum articulus 4us 3o paullo longior; 5us subclavatus, 4o multo longior. Prothorax postice productus, angustus, rotundatus, metathoracem obtegens, lateribus valde rotundatis, carinis lateralibus indeterminatis. Abdomen prothorace perparum longius. Oviductus perparum arcuatus abdomini æquilongus. Pedes robusti, femora quatuor anteriora subtus subsetosa; femora postica subtus spinnlosa; tibiæ quatuor anteriores triseriatim spinosæ; tibiæ posticæ quadriseriatim spinulosæ.

Male. Body stout, smooth. Head narrower than the prothorax, conical and prominent between the antennæ; front and face erect, the latter rather long. Eyes small, not prominent. Palpi long, setulose; fourth joint of the maxillary as long as the third; fifth subclavate, much longer than the fourth. Antennæ very slender, more than twice the length of the body. Prothorax narrower hindward, where it is elongated and much rounded; sides much rounded; lateral keels distinct. Prosternum, mesosternum and metasternum with a spine on each side. Abdomen tapering from the base to the tip, not longer than the prothorax. Legs stout, rather long; four anterior femora with four very minute spines on each side beneath; hind femora with two rows of several minute spines on each side beneath; four anterior tibiæ with five rather long spines on each side beneath and with two or three above; hind tibiæ with four rows of numerous minute spines and with short apical spurs. Wings rudimentary. *Female.*—Prothorax narrower hindward than that of the male. Oviduct hardly curved upward, nearly as long as the body. Wings not apparent.

6. THYREONOTUS BASALIS.

Mas. *Fulvus, fusco aut nigro conspersus; caput postice nigricante notatum; prothorax litura discoidali scutiformi, lateribus late luteis; abdomen basi nigro bistrigatum.* Var. β.—*Pallidior; prothorax testaceo marginatus, lateribus non luteis.* Var. γ.—*Caput et prothorax testacea, hic apicem versus viride, illum postice fusco binotatum.*

Male. Tawny, speckled with brown or black. Head with some blackish marks on each side near the hind border. Prothorax broadly luteous on each side; a scutiform mark in the disk. Abdomen with a short black streak on each side at the base. Legs speckled with brown or with black. *Var.* β.—Paler. Prothorax not luteous on each side; border testaceous. *Var.* γ.—Head and prothorax testaceous. Head brown on each side hindward. Prothorax grass-green towards the tip.

Fœm. *Testaceus; prothorax antice et postice nigropunctatus, apud marginem posticum nigricante binotatus et fusco bilineolatus; oviductus basi viridi bistrigatus.*

Female. Testaceous. Prothorax with black points along the fore border and along the hind border. Abdomen with two black stripes which are much interrupted, except towards the base, and are continued with a blackish hue on the hind part of the prothorax, where they have between them two indistinct brown lines. Oviduct with a broad green streak on each side near the base. *Var.* β.—Darker than the male. Length of the body 8—12 lines.

a—c. South Africa. Presented by Sir A. Smith.
d—k. Natal. From M. Gueinzius' collection.

7. Thyreonotus viridifer.

Mas. *Testaceus; frons subobliqua; prothorax postice productus, disco postico et nonnunquam margine antico viridibus.* Var. β.—*Fulvus; prothorax postice viridis.*

Male. Testaceous, smooth, shining. Head prominent and rounded between the antennæ; front slightly oblique. Eyes not prominent. Prothorax rounded on each side, contracted at the base of the hind part, which is conical and much elongated and has a grass-green disk, which hue also sometimes appears on the fore border of the prothorax. Abdomen shorter than the prothorax, by which it is covered for more than half its length. Legs stout; hind femora with a single row of four minute spines beneath; four anterior tibiæ with six spines on each side beneath and with two above; hind tibiæ with four rows of numerous minute spines. *Var.* β.—Tawny. Elongated part of the prothorax wholly grass-green. Length of the body 8—9 lines.

a—c. Natal. From M. Gueinzius' collection.

Genus 46. ORCHESTICUS.

Orchesticus, *Sauss. Rev. Zool.* 1859, 201.

1. Orchesticus Americanus.

Americanus, *Sauss. Rev. Zool.* 1859, 201.

Tennessee.

Genus 47. CYPHODERRIS.

Cyphoderris, *Uhler, Proc. Ent. Soc. Phil.* ii. 551.

1. Cyphoderris monstrosus.

monstrosus, *Uhler, Proc. Ent. Soc. Phil.* ii. 552.

Oregon Territory.

Genus 48. REQUENA.

Fœm. Corpus glabrum, nitens, apterum, sat gracile. Caput prothorace paullo angustius, cornu antico porrecto robusto brevi acuto; frons obliqua; facies parva. Oculi valde globosi. Palpi maxillares graciles; articuli 3us et 4us æquales; 5us subclavatus, 4o valde longior: Antennæ

gracillimæ. Prothorax postice angustior productus et valde rotundatus, carinis lateralibus indeterminatis, lateribus rotundatis. Oviductus perparum arcuatus, corpore vix brevior. Pedes sat robusti, tibiis anticis femoribusque biseriatim spinosis, tibiis intermediis triseriatim spinosis, tibiis posticis quadriseriatim spinosis.

Female. Body smooth, shining, rather slender. Head a little narrower than the prothorax, with a stout short porrect acute spine between the eyes; front flat, oblique; face small. Eyes moderately large, very prominent. Maxillary palpi slender; third and fourth joints about equal in length; fifth subclavate, much longer than the fourth. Antennæ very slender. Prothorax with the hind part narrower, elongated and much rounded; two very slender transverse furrows; first near the fore border, very slight, forming a slight hindward angle in the middle; second nearer the hind border, hardly apparent; lateral keels not defined; sides rounded. Abdomen lanceolate, longer than the prothorax. Oviduct very slightly curved upward, almost as long as the body. Legs rather stout, moderately long; four anterior femora with five minute spines on each side beneath; hind femora beneath with two rows of numerous minute spines; four anterior tibiæ with five rather long spines on each side; middle tibiæ with two spines above; hind tibiæ with four rows of numerous minute spines; apical spurs short. No wings.

The hind part of the prothorax is less elongated than that of *Thyreonotus*, and it differs much from that genus in the structure of the head between the antennæ.

1. Requena verticalis.

Fœm. *Fulva; vertex niger, testaceo bivittatus; antennæ basi nigræ; prothorax vittis duabus anticis testaceis nigro marginatis; femora postica nigro univittata.*

Female. Tawny. Head black above; a pale testaceous stripe on each side between the eye and the hind border, continued on the prothorax between the fore border and the first furrow, and there bordered with black on the outer side. Eyes a little darker than the body. Antennæ black at the base. Hind femora with a black stripe on the outer side, where there is a row of slight transverse furrows. Length of the body 8 lines.

a. Swan River. Presented by Sir J. Richardson.

Genus 49. PALOTTA.

Mas. Corpus robustum, glabrum, nitens. Caput carinula plana inter antennas instructum; frons obliqua. Oculi elliptici, subglobosi. Palporum articulus 3us 4o paullo brevior; 5us subclavatus, 4o valde longior. Antennæ graciles, basi approximatæ. Prothorax bisulcatus, postice angustior et elongatus, carinis lateralibus indeterminatis, lateribus deflexis valde rotundatis, margine postico rotundato. Pedes validi; tibiæ quatuor anteriores biseriatim quinquespinosæ; tibiæ posticæ quadriseriatim spinosæ. Alæ breves.

Male. Body stout, smooth, shining. Head as broad as the prothorax, with a flat keel between the antennæ, which are approximate; front

oblique. Eyes elliptical, slightly prominent. Third joint of the maxillary palpi a little shorter than the fourth; fifth subclavate, much longer than the fourth. Antennæ slender. Prothorax with two indistinct transverse furrows, narrower and elongated hindward; deflexed sides much dilated and rounded in front; hind border rounded. Legs stout; four anterior tibiæ with five short spines on each side; hind tibiæ with four rows of minute spines, most of which are in the two upper rows. Wings shorter than the abdomen.

1. PALOTTA INORNATA.

Mas. *Testacea, rufo conspersa; clypeus nigricante plagiatus; prothorax callis duobus longis non conspersis; alæ ferrugineæ.*

Male. Testaceous. Prothorax and head towards the mouth with red speckles. Clypeus and labrum with a blackish disk. Eyes piceous. Prothorax with a large elongated unspeckled callus on each side. Hind femora with transverse darker streaks on the outer side. Wings ferruginous. Length of the body 7½ lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

Genus 50. NEDUBA.

Mas. Corpus breviusculum. Caput antice nitens, prothorace angustius, cornu antico porrecto brevi conico; frons non retracta. Oculi parvi, rotundi, non globosi. Palpi maxillares breviusculi; articuli 3us et 4us æquales; 5us clavatus, oblique truncatus, 4o longior. Antennæ longæ, graciles. Prothorax carinatus, antice contractus, postice dilatatns, carinis lateralibus bene determinatis, margine postico valde rotundato. Abdomen breve, angustum. Pedes quatuor anteriores breviusculi; tibiis triseriatim spinosis. Pedes postici longi, femoribus dimidio basali incrassatis et spinosis, tibiis quadriseriatim spinosis. Alæ minimæ.

Male. Body rather short. Head shining in front and on each side, narrower than the prothorax, with a short porrect conical protuberance between the antennæ; front erect. Eyes small, round, slightly prominent. Palpi rather short; third and fourth joints of the maxillary of equal length; fifth clavate, obliquely truncated, longer than the fourth. Antennæ long, slender. Prothorax keeled; the dorsal part contracted near the fore border and from thence enlarged to the hind border, which is much rounded; deflexed part on each side shining, much rounded in front, attenuated and lanceolated hindward. Abdomen much narrower but not longer than the prothorax. Four anterior legs rather short; hind legs long; hind femora incrassated for half the length from the base and there beset above with three or four rows of minute incumbent spines; four anterior tibiæ with seven small spines on each side; fore tibiæ with one spine above; middle tibiæ with three spines above; hind tibiæ with numerous spines in two rows and with a few in two other rows. Wings rudimentary.

1. NEDUBA CARINATA.

Mas. *Ferruginea; caput antice cinereum, subtus albidum; antennæ piceæ, testaceo fasciatæ; prothorax margine tenui testaceo nigro-strigato, lateribus deflexis obscure cinereis; pedes quatuor anteriores albidi, nigricante varii; pedes postici fusci, femoribus basi albidis.*

Male. Ferruginous. Head dark cinereous in front and on each side, whitish beneath. Antennæ piceous, with some testaceous bands, testaceous with some brown rings towards the base. Prothorax with a narrow testaceous border which includes black streaks; deflexed part on each side dark cinereous. Pectus testaceous. Four anterior legs whitish, with blackish patches and speckles; hind legs brown, the femora whitish on the inner side towards the base. Length of the body 8 lines.

a. California. From M. Hartweg's collection.

Genus 51. ORPHANIA.

Orphania, *Fisch. Orth. Eur.* 222—Barbitistes, *Charp. Serv. Orth.*—Ephippiger, *Serv. Rev.*—Ephippigera, *Burm.*—Odontura, *Ramb.*

1. ORPHANIA DENTICAUDA.

Barbitistes denticauda, *Charp. Hor. Ent.* 99, pl. 3, f. 3, 6. *Serv. Hist. Orth.* 478—Ephippigera denticauda, *Burm. Handb. Ent.* ii. 680—Ephippiger denticauda, *Serv. Rev.* 69—Orphania denticauda, *Fisch. Orth. Eur.* 222, pl. 12, f. 3—Odontura denticauda, *Ramb. Faune And.* 45.

South Europe.

Genus 52. THAMNOTRIZON.

Locusta, *Linn., Fabr., Charp., Zett.*—Decticus, *Burm. Handb. Ent.* ii. 709—Micropteryx, *Steph.*—Pterolepis, *Serv.*—Pholidoptera, *Wesm.*—Thamnotrizon, *Fisch. Orth. Eur.* 261.

1. THAMNOTRIZON APTERUS.

Locusta aptera, *Fabr. Ent. Syst.* ii. 45—Thamnotrizon apterus, *Fisch. Orth. Eur.* 262, pl. 13, f. 12.

South Europe.

2. THAMNOTRIZON CHABRIERI.

Locusta Chabrieri, *Charp. Hor. Ent.* 119. *Petagn. Instit. Ent.* pl. 20, f. 13—Pterolepis Chabrieri, *Serv. Hist. Orth.* 493—Decticus Chabrieri, *Burm. Handb. Ent.* ii. 712. *Fisch. de W. Orth. Ross. Corrig.* 412 (Olynthoscelis)—Locusta varia, *Petagna, Inst. Ent.* x. 13—Thamnotrizon Chabrieri, *Fisch. Orth. Eur.* 263, pl. 13, f. 13.

South Europe. Caucasus.

3. Thamnotrizon transylvanicus.

transylvanicus, *Fisch. Ver. Naturwiss Hermanstadt*, 1853; *Orth. Eur.* 264, pl. 13, f. 14.

Transylvania.

4. Thamnotrizon fallax.

Locusta Chabrieri, *H.-Sch., Panz. Faun. Ins.* 175, pl. 15—Thamnotrizon fallax, *Fisch. Orth. Eur.* 265, pl. 13, f. 15.

South Europe.

5. Thamnotrizon cinereus.

Locusta cinerea, *Linn. Syst. Nat. Ed. Gmel.* i. 5, 2071. *Zett. Orth. Suec.* 70. *Hagenb. Symb.* 30, f. 17, 18—Locusta aptera, *Charp. Hor. Ent.* 117—Locusta griseoaptera, *Deg. Ins.* iii. 436—Locusta clypeata, *Panz. Faun.* xxxiii. f. 4. *Roes. Ins.* ii. 128, pl. 28, f. 8—Decticus apterus, *Burm. Handb. Ent.* ii. 711. *De Borck. Rätz. Ins.* 78—Pterolepis aptera, *Serv. Hist. Orth.* 494—Pholidoptera aptera, *Wesm. Orth. Belg.* 592—Micropteryx aptera, *Steph. Ill. Brit. Mand.* vi. 12—Thamnotrizon cinereus, *Fisch. Orth. Eur.* 265, pl. 13, f. 16.

a. England. Presented by F. Smith, Esq.
b—e. England. From Mr. Stephens' collection.
f, g. England.
h. Paris. From Prof. Westwood's collection.

6. Thamnotrizon Ramburi.

Pterolepis Ramburi, *Serv. Hist. Orth.* 493—Thamnotrizon? Ramburi, *Fisch. Orth. Eur.* 267.

South France.

7. Thamnotrizon specularis.

Peltaspes specularis, *Fisch. de W. Bull. Mosc.* xii. 112—Pterolepis specularis, *Fisch. de W. Orth. Ross.* 213, pl. 20, f. 5—Thamnotrizon specularis, *Fisch. Orth. Eur.* 267.

Tauria.

8. Thamnotrizon pustulipes.

Pterolepis pustulipes, *Motsch. Fisch. de W. Orth. Ross. Suppl.* 360, pl. 33, f. 3—Thamnotrizon pustulipes, *Fisch. Orth. Eur.* 267.

Tauria.

9. Thamnotrizon venosus.

Peltastes venosus, *Fisch. de W. Bull. Mosc.* 1839, xii. 112, pl. 3, f. 2, 3—Pterolepis venosa, *Fisch. de W. Orth. Ross.* 212, pl. 20, f. 3, 4.

10. Thamnotrizon radiatus.

Peltastes hastatus, *Fisch. de W. Bull. Mosc.* xii. 112—Pterolepis radiata, *Fisch. de W. Orth. Ross.* 214, pl. 20, f. 6.

Siberia.

11. THAMNOTRIZON CAUCASICUS.

Pterolepis Caucasica, *Fisch. de W. Orth. Ross.* 215, pl. 27, f. 3.
Caucasus.

12. THAMNOTRIZON STRIOLATUS.

striolatus, *Fisch. Watt. Disq. Orth.* 1861.

13. THAMNOTRIZON AUSTRIACUS.

Austriacus, *Fisch. Watt. Disq. Orth.* 1861.
Austria.

14. THAMNOTRIZON SIGNATUS.

signatus, *Watt. Disq. Orth.* 1861.
Tauria.

15. THAMNOTRIZON SIMILIS.

similis, *Watt. Disq. Orth.* 1861.
Metradia.

16. THAMNOTRIZON DIFFORMIS.

difformis, *Watt. Disq. Orth.* 1861.
Ukraine.

17. THAMNOTRIZON GRACILIS.

gracilis, *Watt. Disq. Orth.* 1861.
Hungary.

18. THAMNOTRIZON LEDERERI.

Pterolepis Ledereri, *Fieb. Wien. Ent. Mon.* v. 196.
Beyrout.

19. THAMNOTRIZON FEMORALIS.

Pterolepis femoralis, *Fieb. Wien. Ent. Mon.* v. 193.
Daouria.

20. THAMNOTRIZON SCHMIDTI.

Pterolepis Schmidti, *Fieb. Wien. Ent. Mon.* v. 197.
Varna.

21. THAMNOTRIZON MAGNIFICUS.

magnificus, *Costa, Atti, Accad. Scienze Napoli*, i. 28, pl. 3, f. 1.
Calabria.

Genus 53. MARSA.

Mas. Corpus crassum, nitens, apterum, valde arcuatum, fere glabrum. Caput breve, prothorace paullo angustius, inter antennas punctatum; frons non obliqua. Oculi parvi, pyriformes, non globosi. Palpi crassi; articulus 4us 3o brevior; 5us linearis, subtus excavatus, 3o longior. Antennæ validæ, basi approximatæ, corpore longiores. Prothorax carinis

lateralibus obsoletis, lateribus subrotundatis, margine postico recto. Mesothorax et metathorax sat magni. Abdomen parvum, subtuberculatum, thorace angustius non longius. Pedes crassi; femora intermedia biseriatim sexspinosa; femora postica biseriatim spinosa; tibiæ quatuor anteriores triseriatim spinosæ; tibiæ posticæ biseriatim spinosæ, apice calcaratæ.

Male. Body thick, shining, much arched, nearly smooth. Head short, a little narrower than the prothorax, with a very narrow and slightly punctured space between the antennæ; front flat, erect. Eyes small, pear-shaped, not prominent. Palpi thick. Maxillary palpi about twice the length of the labial; fourth joint shorter than the third; fifth linear, excavated beneath, longer than the third. Third joint of the labial palpi clavate, longer than the second. Antennæ stout, approximate at the base, longer than the body. Prothorax convex, without lateral keels; fore border and hind border straight; sides slightly rounded. Mesothorax and metathorax large. Abdomen small, slightly tuberculate, narrower and not longer than the prothorax. Cerci stout. Legs thick, not long; fore femora unarmed; middle femora with six spines on each side; hind femora with fifteen minute spines on the outer side; the inner side with the same number of spines, some of which are very large, others very small; four anterior tibiæ with four spines on each side beneath; fore tibiæ with one spine above; middle tibiæ with four spines above; hind tibiæ with three large spines on the outer side and with four on the inner side, and with several minute spines on each side and with an apical circlet of six spurs; tarsi stout, second and third joints short; ungues long. Wings none.

This genus has some affinity to the *Raphidophoridæ*.

1. Marsa arcuata.

Mas. *Fulva; facies fusca, basi fulva; antennæ piceæ, basi fulvæ.*

Male. Tawny. Face mostly brown. Mandibles black. Eyes piceous. Antennæ piceous, tawny towards the base, spines of the legs and ungues with black tips. Length of the body 9 lines.

a. Saskatchewan.

Genus 54. DECTICUS.

Decticus, *Serv. Rev.* 59. *Hist. Orth.* 482. *Brullé, Burm. Handb. Ent.* ii. 709. *Fisch. de W. De Borck Ramb. Fisch. Orth. Eur.* 268—Locusta, *Fabr., Zett., Philippi, Charp., Hagenb.*—Anisoptera, *Latr. Fam. Nat.* 413; *R. Anim.* v. 184. *Serv. Rev.*—Acrida, *Curtis, Kirby, Steph. Cat.*—Micropteryx, *Steph. Ill.*—Chelidoptera et Metriophora, *Wesmael*—Decticus et Platycleis, *Fieber.*

Europe and N. W. Asia.

Sect. 1. Sub-genus PLATYCLEIS, *Fieb.*

1. Decticus griseus.

Gryllus griseus, *Linn. Faun. Suec.* 548—Locusta grisea, *Fabr. Ent. Syst.* ii. 41. *Latr. Hist. Nat.* xii. 131, pl. 95, f. 2. *Zett. Orth. Suec.* 65. *Schaff. Icon.* pl. 190, f. 1, 2; pl. 263, f. 1, 2. Var. pl. 62, f. 1—4; pl. 258, f. 1, 2. *Roesel, Ins.* ii. pl. 20, f. 10. *Savigny, Descr. Egypt. Orth.*

pl. 3, f. 9. *Philippi, Orth. Berol.* 22. *Hagenb. Symb. Faun.* i. 32, f. 19. *Charp. Hor. Ent.* 120—Locusta denticulata, *Panz. Faun. Ins.* 335—Locusta falcata, *Zett. Orth. Suec.* 68—Decticus griseus, *Serv. Rev.* 59; *Hist. Orth.* 488. *Brullé. Hist. Nat. Ins.* ix. 150. *Burm. Handb. Ent.* ii. 710. *De Borck, Rätz. Ins.* 72. *Fisch. de W. Orth. Ross.* 165, pl. 10, f. 4. *Fisch. Orth. Eur.* 269, pl. 13, f. 3 (Platycleis) —Krynicki, *Fisch. de W.*

a—e. England. Presented by J. C. Dale, Esq.
f—j. England. From Mr. Stephens' collection.
k. England.
l. Paris. From Prof. Westwood's collection.
m—o. South France. Presented by F. Walker, Esq.
p. Malta.
q—u. Madeira. From Mr. Wollaston's collection.

2. Decticus montanus.

Locusta montana, *Kollar, Bietr.* iii. 79—Locusta tessellata, *Philippi, Orth. Ber.* 23, pl. 1, f. 4—Decticus tessellatus, *Burm. Handb. Ent.* ii. 710. *Fisch. de W. Orth. Ross* 167?—Decticus Philippinus, *Zeller, Ent. Zeit.* 1849, 116—Decticus montanus, *Fisch. Orth. Eur.* 271, pl. 13, f. 4 (Platycleis).

Europe. Siberia.

3. Decticus tessellatus.

Locusta tessellata, *Charp. Hor. Ent.* 121, pl. 3, f. 4—Decticus tessellatus, *Serv. Rev.* 59; *Hist. Orth.* 489. *Burm. Handb. Ent.* ii. 710. *Zeller, Ent. Zeit.* 1849, 116. *Fisch. Orth. Eur.* 272, pl. 13, f. 6 (Platycleis).

a. Paris. From Prof. Westwood's collection.

4. Decticus strictus.

Decticus strictus, *Zeller, Ent. Zeit. Stett.* x. 116. *Fisch. Orth. Eur.* 273, pl. 13, f. 5 (Platycleis).

Italy.

5. Decticus bicolor.

Locusta bicolor, *Philippi, Orth. Ber.* 24, pl. 1, f. 5—Decticus abbreviatus? *Serv. Hist. Orth.* 490—Decticus bicolor, *Burm. Handb. Ent.* ii. 711. *Fisch. de W. Orth. Ross.* 173. *Fisch. Orth. Eur.* 273, pl. 13, f. 7, 8 (Platycleis)—Locusta viennensis, *Kollar, Ann. Wien. Mus. Naturg.* i. 209, pl. 18, f. 1—Micropteryx bicolor, *Fisch. Jahreb. Mann. Ver. Nat.* 1850, 36—Decticus Sieboldii, *Fisch. Jahreb. Mann. Ver. Nat.* 1849, 46; 1850, 36.

Europe.

6. Decticus brevipennis.

——— ———, *Roes. Ins.* ii. 129, pl. 20, f. 9—Locusta brevipennis, *Charp. Hor. Ent.* 114. *Philippi, Orth. Ber.* 25, pl. 1, f. 6, 7—Micropteryx brevipennis, *Fisch. Jahreb. Mann. Ver.* 1850, 36—Locusta Roeselii,

Hagenb. Sym. Faun. i. 39, f. 24—Decticus sinuatus, *Fisch. de W. Orth. Ross.* 170, pl. 26, f. 6—Decticus brevipennis, *Serv. Hist. Orth.* 490. *Burm. Handb. Ent.* ii. 710. *De Borck, Rätv. Ins.* 77. *Fisch. de W. Orth. Ross.* 172. *Fisch. Orth. Eur.* 274, pl. 13, f. 9 (Platycleis) —Micropteryx Roeselii, *Steph. Ill. B. Ent. Mand.* vi. 13—Acrida Kirbii, *Steph. Cat.* 300—Var. Locusta diluta, *Charp. Hor. Ent.* 116—Decticus dilutus, *Burm. Handb. Ent.* ii. 710—Decticus pellucidus, *H.-Sch. Nomen.* ii. 12.

a, *b*. England. Presented by J. C. Dale, Esq.
c, *d*. England. From Mr. Stephens' collection.
e, *f*. England.
g. France. From Prof. Westwood's collection.

7. Decticus vittatus.

Locusta vittata, *Charp. Hor. Ent.* 115—Decticus vittatus, *Burm. Handb. Ent.* ii. 711. *Fisch. de W. Orth. Ross.* 171. *Fisch. Orth. Eur.* 276, pl. 13, f. 14 (Platycleis).

South Russia. Hungary. Italy.

8. Decticus brachypterus.

Gryllus brachypterus, *Linn. Faun. Suec.* 237—Locusta brachyptera, *Fabr. Ent. Suec.* ii. 43. *Deg. Ins.* iii. 433, pl. 22, f. 2, 3. *Latr. Hist. Nat.* xii. 133. *Charp. Hor. Ent.* 113. *Hagen. Sym. Faun.* 29, pl. 15, 16. *Zett. Orth. Suec.* 66—Anisoptera brachyptera, *Latr. Fam. Nat.* 413—Metriophora brachyptera, *Wesm. Orth. Belg.* 592 — Micropteryx brachyptera, *Steph. Ill. B. Ent. Mand.* vi. 13. *Fisch. Jahreb.* 1850, 36—Decticus brachypterus, *Serv. Hist. Orth.* 489. *Burm. Handb. Ent.* ii. 711. *De Borck, Rätv. Ins.* 74. *Fisch. de W. Orth. Ross.* 169, pl. 10, f. 5, 6. *Fisch. Orth. Eur.* 277, pl. 13, f. 10 (Platycleis).

a, *b*. England. Presented by J. C. Dale, Esq.
c—f. England. From Mr. Stephens' collection.
g. England.

9. Decticus tibialis.

tibialis, *Fisch. de W. Orth. Ross.* 168, pl. 29, f. 5.

Siberia.

10. Decticus sinuatus.

sinuatus, *Motsch. MSS. Fisch. de W. Orth. Ross.* pl. 29, f. 6.

Orunburg. Caucasus.

11. Decticus punctifrons.

punctifrons, *Burm. Handb. Ent.* ii. 712.

Syria.

12. Decticus Eversmanni.

Eversmanni, *Kittary*, *Bull. Mosc.* 1849, 456.

Kirgis Steppes.

13. Decticus Trockii.

Trockii, *Kittary*, *Bull. Mosc.* 1849, 456, pl. 8, f. 3.

14. Decticus striatus.

striatus, *Kittary*, *Bull. Mosc.* 1859, 456, pl. 8, f. 4.

15. Decticus sepium.

sepium, *Yersin*, *Bull. Soc. Vaudoise*, 1854.

South France.

16. Decticus Pancici.

Platycleis (Psorodonotus) Pancici, *Fieb. Watt. Disq. Orth.* 1861.

Servian Alps.

17. Decticus affinis.

Platycleis (Psorodonotus) affinis, *Fieb. Watt. Disq. Orth.* 1861.

18. Decticus decoratus.

Platycleis (Psorodonotus) decorata, *Fieb. Watt. Disq. Orth.* 1861.

19. Decticus nigrosignatus.

Decticus (Platycleis) nigrosignatus, *Costa*, *Atti. Accad. Scienze Napoli*, i. 30, pl. 3, f. 3, 4.

Calabria.

Subgenus DECTICUS.

Chelidoptera, *Wesm.* ex parte.

20. Decticus albifrons.

——— ———, *Savigny*, *Descr. Egypt. Orth.* pl. 3, f. 8. *Zinnand*, *Oss. Giorn.* 22, pl. 7, f. 7—9—Locusta albifrons, *Fabr. Ent. Syst.* ii. 41. *Latr. Hist. Nat.* xii. 133. *Charp. Hor. Ent.* 125. *Cyrillo*, *Spec. Ent. Neap.* pl. 10, f. 1. *Germ. Faun. Ins. Eur.* 20, pl. —Decticus albifrons, *Brullé*, *Hist. Nat. Ins.* ix. 150. *Serv. Hist. Orth.* 486. *Burm. Handb. Ent.* ii. 709. *Fisch. de W. Orth. Ross.* 154, pl. 28, f. 6. *Fisch. Orth. Eur.* 278, pl. 13, f. 1—*Var.*? Decticus Monspeliensis, *Ramb. MSS. Serv. Hist. Orth.* 487.

a. Tunis. From Mr. Fraser's collection.
b. Asia Minor. Presented by H. Poole, Esq.
c. Teneriffe. Presented by Capt. Beechey.
d. Belgium. Presented by Lady Seymour.
e—*i*. Madeira. From Mr. Wollaston's collection.
j—*m*. ———?

21. Decticus verrucivorus.

———, *Geoffr. Ins. Par.* i. 397. *Roes. Ins.* ii. pl. 8, 9. *Sch. Icon.* i. pl. 62, f. 5; iii. 236, f. 1—4; pl. 242, f. 5, 6; pl. 249, f. 1, 2; pl. 255, f. 1, 2 — Gryllus (Tettigonia) verrucivorus, *Linn. Syst. Nat.* 698; *Faun. Suec.* 870. *Stoll, Saut. et Gryll.* pl. 23 b, f. 92. *Ratz. Forstins,* iii. 276, pl. 14, f. 6—Locusta verrucivora, *Fabr. Ent. Syst.* ii. 42. *Deg. Ins.* iii. 430, pl. 21, f. 1, 2. *Enc. Meth.* pl. 130, f. 4—7. *Latr. Hist. Nat.* xii. 130. *Panz. Faun. Germ.* 87, f. 20, 21. *Charp. Hor. Ent.* 124. *Philippi, Orth. Berol.* 21. *Zett. Orth. Suec.* 63—Gryllus (Tettigonia) verrucivorus, *Stoll, Saut. et Grill.* pl. 23 b, f. 92—Decticus verrucivorus, *Serv. Hist. Orth.* 484. *Burm. Handb. Ent.* ii. 710. *Steph. Ill. Brit. Ent. Mand.* vi. 17. *De Borck. Rätv. Ins.* 68. *Fisch. de W. Orth. Ross.* 156. *Fisch. Orth. Eur.* 280, pl. 13, f. 2—Acrida Binglei, *Curtis, Brit. Ent.* ii. pl. 82—Decticus Binglei, *Steph. Ill. Brit. Ent. Mand.* vi. 17, pl. 4, f. 2, 3.

a—*c*. England. From Mr. Stephens' collection.
d, *e*. England.
f. Paris. From Prof. Westwood's collection.
g, *h*. Switzerland. Presented by F. Walker, Esq.
i. Polish Ukraine. Presented by Dr. Dowler.

22. Decticus Stchukini.

Stchukini, *Fisch. de W. Orth. Ross.* 159, pl. 29, f. 4.

Siberia.

23. Decticus Sedakovii.

Sedakovii, *Fisch. de W. Orth. Ross.* 161, pl. 28, f. 3, 4.

Siberia.

24. Decticus macrocephalus.

macrocephalus, *Fisch. de W. Orth. Ross.* 162, pl. 29, f. 1.

Kirgis Steppes.

25. Decticus Krynickii.

Krynickii, *Fisch. de W. Orth. Ross.* 164, pl. 10, f. 3.

Russia.

26. Decticus intermedius.

intermedius, *Ramb. MSS. Serv. Hist. Orth.* 488.

South France.

North America.

27. Decticus sphagnorum.

Mas. *Ferrugineus; caput prothorace paullo angustius, antice et postice albido lituratum; frons albido bistrigata; prothorax postice carinatus, lateribus viridi marginatis, margine postico subrotundato; abdominis segmenta viridi marginata; venter albido vittatus; pedes testacei, femoribus posticis nigro strigatis, tibiis viridibus; alæ*

anticæ fuscæ, breves, vitta discoidali viridi. Fœm.—*Obscurior; oviductus fulvus, arcuatus, abdomine longior; alæ amplæ; alæ anticæ nigricantes, apud costam cinereæ; alæ posticæ diaphanæ, apice fuscescentes.*

Locusta sphagnorum, *Barnston, MSS.*

Male. Ferruginous, smooth, shining. Head a little narrower than the prothorax, with a conical broad flat protuberance between the antennæ; some whitish marks along the hind border and towards the mouth; front erect, with two short slender parallel whitish streaks. Eyes small, slightly oval, hardly prominent. Third joint of the maxillary palpi much longer than the fourth; fifth subclavate, truncated and blackish at the tip, much longer than the third. Antennæ much longer than the body. Prothorax bordered with green on each side, much rounded on each side in front, narrower towards the hind border, which is slightly rounded; hind part with a slight keel. Hind borders of the abdominal segments green on each side; ventral segments with a broad whitish stripe; tip whitish beneath. Legs testaceous; hind femora with a black streak on the outer side; tibiæ dull green; four anterior tibiæ with three rows of spines; hind tibiæ with four rows of spines. Fore wings brown, with a green stripe in the disk, extending to half the length of the abdomen. *Female.*—Darker. Oviduct tawny, curved upward, longer than the abdomen. Wings much longer than the body. Fore wings blackish, cinereous along the costa, rather longer than the hind wings. Hind wings pellucid, pale brownish at the tips; transverse veins white. Length of the body 7½ lines; expansion of the fore wings of the female 24 lines.

a—e. St. Martin's Falls, Hudson's Bay. Presented by Dr. Barnston.

Sect. n.

Fœm. Corpus robustum, glabrum, apterum, subtus nitens. Caput prothorace paullo angustius, antice nitens et erectum, tuberculo inter antennas puncto rotundato sulcato. Oculi non globosi. Palpi maxillares longi; articuli 3us et 4us subæquales; 5us clavatus, 4o valde longior. Prothorax longiusculus, sulcis duobus transversis angulatis, carinis lateralibus bene determinatis, lateribus valde rotundatis, margine postico rotundato. Abdomen prothorace multo longius. Oviductus corpore æquilongus. Tibiæ quatuor anteriores triseriatim spinosæ.

Female. Body stout, smooth, wingless, shining beneath. Head a little narrower than the prothorax, shining in front, prominent and rounded, and with a longitudinal furrow between the eyes; a slight transverse furrow between the front and the face; face with two oblique furrows, which converge towards the clypeus. Palpi with the apical joint clavate and truncated. Maxillary palpi long; first and second joints very short; third and fourth nearly equal in length; fifth very much longer than the fourth. Prothorax elongate, with two slight angular transverse furrows, the hinder one much more deeply angular than the other one; lateral keels sharply defined, very slightly curved inward; sides very much rounded; hind border rounded. Abdomen lanceolate towards the tip, much longer than the prothorax. Oviduct as long as the body. Fore tibiæ with five spines on each side and with two spines above; middle tibiæ with five spines on

the outer sides, with three on the inner side and with two above; hind tibiæ with four rows of numerous spines.

28. Decticus derogatus.

Fœm. *Fuscus, subtus testaceus; caput antice testaceum.*

Female. Brown, testaceous beneath. Head testaceous in front. Length of the body 10½ lines.

a. Massachusetts. From Prof. Shepard's collection.

South America.

29. Decticus fuscescens.

fuscescens, *Blanch. Gay, Chile*, vi. 44.

Coquimbo.

South Asia.

30. Decticus Burgeri.

Burgeri, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 214.

Japan.

31. Decticus concinnus.

Fœm. *Pallide luteus; caput nigro bistrigatum et quadrivittatum, fronte sparse punctata; palpi maxillares nigricante fasciati, basi albo cincti; prothorax carinis lateralibus bene determinatis, discis lateralibus nigris; abdomen fusco late bifasciatum; oviductus nigricans, basi pallide luteus, abdomine brevior; femora antica fusco notata; femora intermedia nigro interrupte vittata; femora postica nigro vittata et guttata; alæ anticæ abdominis dimidio non longiores.*

Female. Pale luteous. Head as broad as the prothorax; vertex prominent and rounded in front, where there are two short black streaks; two black stripes on each side, united along the eye; front oblique, thinly punctured, with a slight blackish band on the suture between it and the face. Eyes nearly round, not prominent, with black disks. Maxillary palpi with a blackish band on each joint and with three white rings near the base; fourth joint a little longer than the third; fifth much longer than the fourth. Labial palpi with a white ring at the base; third joint subclavate, blackish at the tip. Prothorax with distinct lateral keels, thinly punctured in the deflexed part on each side, which has a black disk and is much rounded. Abdomen with a broad brown stripe on each side. Oviduct blackish, curved upward, pale luteous at the base, shorter than the abdomen. Fore femora mottled with brown; middle femora interruptedly striped with black; hind femora with an entire black stripe on each side and with a row of black dots above; four anterior tibiæ with five slender points on each side and with two above; hind tibiæ with four rows of very minute spines, which are numerous in the two upper rows. Fore wings about half the length of the abdomen. Length of the body 9 lines.

a. Nepaul. Presented by Major-Gen. Hardwicke.

32. Decticus sinensis.

Fœm. *Viridis; vertex vitta lata testacea interlineata; antennæ piceæ, basi pallide virides: prothorax vitta lata testacea fusco interrupte marginata, margine postico rotundato; abdomen cervinum, strigis lateralibus viridibus, ventre testaceo cervino-vittato; oviductus fulvus, rectus, abdomini æquilongus; pedes femoribus uniseriatim spinulosis, tibiis quatuor anterioribus triseriatim spinosis, tibiis posticis quadriseriatim spinosis; alæ diaphanæ, corpore multo longiores; alæ anticæ vitta discoidali e maculis septem fuscis; alæ posticæ pallido venosæ.*

Female. Grass-green, smooth, shining. Vertex of the head with a broad interlined testaceous stripe. Eyes reddish. Palpi pubescent; third joint of the maxillary longer than the fourth; fifth subclavate, very much longer than the third. Antennæ piceous, pale green at the base, much longer than the body. Prothorax with two transverse furrows, testaceous between the lateral keels, except towards the hind border, which is rounded; sides much rounded; an irregular and interrupted brown stripe along each keel. Abdomen fawn-colour; hind borders of the segments green on each side, where there are some irregular green streaks; ventral segments testaceous, with a fawn-coloured stripe. Oviduct tawny, straight, as long as the abdomen. Femora with a few minute spines beneath; four anterior tibiæ with two spines above; fore tibiæ with six spines on each side; middle tibiæ with six spines on one side and with four on the other; hind tibiæ with numerous spines on two of the keels and with a few on the other two keels; spines with black tips. Wings pellucid, much longer than the body. Fore wings with a row of seven brown spots along the internomedian vein; veins green or testaceous; some of the principal veins black towards the base. Hind wings with pale veins. Length of the body 17 lines; expansion of the wings 48 lines.

Like *D. albifrons* in structure.

a. Amoy, China. From Mr. Stevens' collection.

33. Decticus obscurus.

Mas et fœm. *Ferrugineus; frons fulva; clypei latera nigricantia; palpi testacei; prothorax longiusculus, disco postice latiore, carinis lateralibus bene determinatis; abdomen fuscum; oviductus perparum arcuatus, apicem versus niger, abdomine longior; pedes robusti, femoribus nigricante strigatis, tibiis triseriatim spinosis; alæ anticæ fuscescente cinereæ, abdominis apicem attingentes, nigricante maculatæ et venosæ; alæ posticæ cinereæ, paullo breviores.* Var. *β.*—*Abdominis segmenta pallido fasciata.* Var. *γ.*—*Caput et prothorax testacea; prothorax nigricante bivittatus; alæ abdomen superantes.*

Male and female. Ferruginous. Head as broad as the prothorax, slightly prominent and rounded between the antennæ; front tawny, erect; clypeus blackish on each side; mandibles blackish. Eyes black. Palpi testaceous; third joint of the maxillary much longer than the fourth; fifth subclavate, much longer than the third; third joint of the labial clavate, longer than the second. Prothorax elongate; flat part broader hindward; lateral keels well defined; a transverse furrow near the fore border and two

oblique furrows which converge hindward in the disk; vertical part on each side much dilated; hind border slightly rounded. Abdomen brown, paler above. Oviduct black towards the tip, very slightly curved downward, longer than the abdomen. Legs stout; femora with a blackish streak on the outer side; four anterior tibiæ with five or six spines on each side and with two or three above; hind tibiæ with numerous minute black spines in two rows beneath and with a few above. Fore wings brownish cinereous, extending to the tip of the abdomen, with several blackish spots; veins black. Hind wings cinereous, a little shorter than the fore wings. *Var.* β.—Sides of the abdomen with a pale band on the hind border of each segment. *Var.* γ.—Head and prothorax testaceous. Prothorax with an irregular blackish stripe along each keel. Wings extending rather beyond the abdomen. Length of the body 13—16 lines.

a—e. Corea. Presented by Capt. Sir E. Belcher.

Sect. II.

Fœm. Corpus sat gracile. Caput prothoraci æquilatum, inter oculos transverse carinatum; labrum magnum. Oculi parvi, elliptici, non globosi. Palporum articulus 3us 4o valde longior; 5us 3o valde longior. Prothorax subrugulosus, margine postico subrotundato subascendente. Oviductus abdomini æquilongus. Pedes longiusculi, femoribus anticis et posticis uniseriatim spinosis, tibiis intermediis inermibus, tibiis quadriseriatim spinosis, tarsis longis angustis. Alæ brevissimæ.

Female. Body rather slender. Head as broad as the prothorax, with a transverse ridge between the eyes; front erect, rather small; labrum large. Eyes small, elliptical, not prominent. Third joint of the maxillary palpi much longer than the fourth; fifth subclavate, much longer than the third. Antennæ slender, very much longer than the body. Prothorax minutely rugulose, with two slightly curved transverse furrows, with a slight longitudinal furrow (which in the hind part becomes a slight keel), and with two oblique furrows; lateral keels distinct; sides much rounded; hind border slightly rounded and elevated. Oviduct as long as the abdomen. Legs rather long; fore femora with a single row of three spines; middle femora unarmed; hind femora with a single row of eight spines; tibiæ with four rows of spines; tarsi rather long and slender. Wings full half the length of the abdomen.

34. Decticus pallidus.

Fœm. *Pallide testaceus; caput albidum; antennæ fusco fasciatæ.*

Female. Pale testaceous. Head whitish. Mandibles with black teeth. Eyes pale brown. Antennæ with several brown bands. Femora towards the base beneath and coxæ whitish; spines brown at the base or wholly brown, their tips black. Length of the body 14 lines.

a. North Hindostan. From Dr. Hooker's collection.

Sect. II.

Fœm. Corpus sat gracile. Caput et prothorax subtilissime punctata. Caput inter antennas latum rotundatum; frons glabra, non retracta. Oculi ovales, non globosi. Palporum articulus 3us 4o duplo longior; 5us

4o triplo longior. Prothorax dorso plano, carinis lateralibus bene determinatis, margine postico subrotundato. Oviductus subarcuatus, abdomine longior. Pedes longi, sat graciles, femoribus posticis tibiisque quatuor anterioribus biseriatim spinosis, tibiis posticis quadriseriatim spinosis. Alæ corpore fere duplo longiores.

Female. Body rather slender. Head and prothorax very finely punctured. Head as broad as the prothorax, rounded above and between the antennæ, where there is a broad space; front erect, smooth. Eyes oval, not prominent. Third joint of the maxillary palpi about twice the length of the fourth; fifth about thrice the length of the fourth. Antennæ slender, longer than the body. Prothorax flat above, with two transverse furrows, one longitudinal furrow and two oblique furrows; lateral keels well defined; sides much extended and rounded; hind border slightly rounded. Oviduct slightly curved upward, longer than the abdomen. Legs long, rather slender; hind femora with a few spines on each side beneath; four anterior tibiæ with two rows of short and very slender spines; hind tibiæ with four rows of numerous spines. Wings nearly twice the length of the body.

35. Decticus tenebrosus.

Fœm. *Ferrugineus; prothorax plagis duabus lateralibus magnis nigris; femora transverse rugulosa; tarsi nigricantes; alæ anticæ vitta informi e plagis cinereis maculisque nigris; alæ posticæ cinereæ.*

Female. Ferruginous. Prothorax with a large black patch on each side in the deflexed part. Femora transversely rugulose; tarsi blackish. Fore wings with an irregular stripe of cinereous patches and of black spots of various size and shape. Hind wings cinereous. Length of the body 12—14 lines; of the wings 56—60 lines.

a. Philippine Isles. From Mr. Cuming's collection.
b. Corea. Presented by Capt. Sir E. Belcher.

New Zealand.

36. Decticus semivittatus.

Fœm. *Testaceus; caput cornu parvo antico porrecto rotundato nigricante vittato, fronte perparum obliqua; oculi sat globosi; prothorax breviusculus, postice latior, carinis lateralibus vix determinatis, margine postico recto; abdomen vittis duabus fuscis valde indeterminatis; oviductus vix arcuatus, abdomine paullo longior; pedes sat longi, femoribus posticis tibiisque quatuor anterioribus biseriatim spinulosis, tibiis posticis quadriseriatim spinulosis; alæ anticæ brevissimæ, vitta costali nigricante.*

Female. Testaceous, smooth, shining. Head as broad as the prothorax, with a short porrect much rounded protuberance, which has a blackish stripe; front very slightly oblique, with a distinct transverse suture between it and the face, which is very short. Eyes rather large and prominent, mottled with black. Mandibles with black tips. Maxillary palpi slender; fourth joint a little shorter than the third; fifth very slightly clavate, a little longer than the third. Antennæ very slender. Prothorax rather short, broader towards the hind border, which is straight; lateral

keels slightly defined. Abdomen lanceolate, more than twice the length of the prothorax, with two very incomplete brown stripes. Cerci lanceolate, moderately long. Oviduct hardly curved, a little longer than the abdomen. Legs moderately long and slender; hind femora and four anterior tibiæ with a few very short and slender spines on each side beneath; hind tibiæ with four rows of numerous minute spines and with very short apical spurs. Fore wings nearly half the length of the abdomen, with a blackish costal stripe. Length of the body 7½ lines.

a. Auckland, New Zealand. Presented by Dr. Sinclair.

Country unknown.

37. Decticus frontalis.

Fœm. *Viridis, luteo varius; caput prothorace paullo latius, cornu antico brevi porrecto rotunduto sulcato, fronte magna, clypeo luteo, labro flavescente albo; antennæ piceæ, basi pallidæ; prothorax aspere punctatus, carinis lateralibus bene determinatis, lateribus pallide luteis subreflexis, margine postico recto; abdomen e plagis fuscis luteo submarginatis quadrivittatum; oviductus fulvus, subarcuatus, apice niger, corpore vix brevior; pedes femoribus anticis trispinosis, femoribus posticis tibiisque quatuor anterioribus biseriatim spinosis, illis vittis duabus macularibus albidis, tibiis posticis quadriseriatim spinosis; alæ anticæ cinereæ, vitta costali alba fusco plagiata, vitta discoidali viridi; alæ posticæ diaphanæ, fasciis plurimis fuscis.*

Female. Green, partly luteous, smooth, shining. Head a little broader than the prothorax, with a little porrect, rounded, furrowed protuberance between the antennæ; front large, erect; clypeus luteous; labrum large, yellowish white. Eyes round, slightly prominent. Fourth joint of the maxillary palpi longer than the third; fifth longer than the fourth. Antennæ piceous; pale towards the base. Prothorax roughly punctured, with distinctly marked lateral keels; sides much rounded, pale luteous and slightly reflexed; hind border straight, hardly elevated. Sternum with two spines on each division. Mesothorax and metathorax blackish. Abdomen with four stripes of brown patches, which are partly bordered with pale luteous. Oviduct tawny, slightly curved upward, black at the tip, nearly as long as the body. Fore coxæ with the usual spines; fore femora with three very minute spines; middle femora unarmed; hind femora with twelve minute spines on one side and with two on the other side, and with a whitish stripe on each side composed of spots; four exterior tibiæ with six spines on each side and with two above; hind tibiæ with four rows of spines. Fore wings cinereous, with a green stripe in the disk and with a white costal stripe, the latter including a row of brown patches which are intersected by ramose white veins. Hind wings pellucid, with numerous mostly irregular brown bands which include the black transverse veins; costal veins green. Length of the body 14 lines; expansion of the fore wings 30 lines.

a. ———?

Genus 55. LUCERA.

Mas. Corpus robustum, subtus nitens. Caput prothorace non angustius, spatio inter oculos lato transverse arcuatim carinato. Oculi non globosi. Palporum articulus 4us 3o multo brevior; 5us clavatus, 3o multo longior. Prothorax subtilissime rugulosus, disco plano sulcis duobus transversis, duobus obliquis unoque longitudinali, carinis lateralibus indeterminatis, margine postico subascendente subinciso. Abdomen lanceolatum, subcarinatum, apice quadrispinosum, prothorace duplo longius, segmentorum marginibus posticis subdentatis. Pedes sat validi, femoribus anticis bispinosis aut trispinosis, femoribus tibiisque posticis longissimis, his quadriseriatim spinosis, illis biseriatim spinosis. Alæ erectæ, contiguæ, abdominis apicem non attingentes.

Male. Body stout, shining beneath. Head as broad as the prothorax; space between the eyes broad, with a well-defined transverse curved keel; a slight transverse furrow between the front and the face, which is small. Eyes small, slightly prominent. Palpi moderately long; apical joint clavate, not truncated; fourth joint of the maxillary much shorter than the third; fifth much longer than the third. Antennæ slender. Prothorax very finely rugulose, much narrower towards the hind border, which is slightly elevated and notched; disk flat, with two transverse, one longitudinal and two oblique furrows; lateral keels not defined; sides slightly rounded. Abdomen lanceolate, slightly keeled above, full twice the length of the prothorax, with four apical spines, the two upper spines much shorter than the two lower, hind borders of the segments slightly dentate in the middle. Legs moderately stout; fore femora with two or three very minute spines beneath near the tips; hind femora and hind tibiæ very long; hind femora incrassated towards the base, with five minute spines on each side beneath; tibiæ with four rows of numerous minute spines. Wings vertical, contiguous, not extending to the tip of the abdomen.

The broader and less rounded space between the eyes and its transverse keel distinguishes this genus from *Decticus*.

1. Lucera bicoloripes.

Mas. *Testacea, tibiis quatuor anterioribus fuscis, tarsis quatuor anterioribus fulvis.*

Male. Testaceous. Eyes piceous. Four anterior tibiæ brown; four anterior tarsi tawny. Wings like the body in colour. Length of the body 11 lines.

a. Macao, China. Presented by J. C. Bowring, Esq.

Genus 56. DEXERRA.

Mas. Corpus glabrum, sat robustum. Caput prothorace vix angustius, apud antennas subporrectum et subrotundatum; frons obliqua, sparse punctata. Oculi magni, rotundi, globosi. Palporum articulus 3us 4o paullo brevior; 5us subclavatus, 4o multo longior. Prothorax brevis,

postice angustior, carinis lateralibus non conspicuis, margine postico valde rotundato. Abdomen lineare, prothorace multo angustius. Pedes femoribus posticis dimidio basali incrassatis, tibiis quatuor anterioribus biseriatim spinosis, tibiis posticis quadriseriatim spinosis. Alæ minimæ.

Male. Body smooth, rather stout. Head nearly as broad as the prothorax, slightly rounded and prominent between the eyes; front oblique, thinly punctured. Eyes large, prominent, round. Third joint of the maxillary palpi a little shorter than the fourth; fifth subclavate, much longer than the fourth. Third joint of the labial palpi subclavate, much longer than the second. Antennæ long, slender. Prothorax short, narrower towards the hind border, which is much rounded and slightly elevated; sides rounded, lateral keels not defined. Abdomen linear, much narrower than the prothorax. Hind femora incrassated for half the length from the base, slender from thence to the tips; four anterior tibiæ with five rather long spines on each side; hind tibiæ with very numerous spines in two rows above, and with very few in two rows beneath. Wings rudimentary.

The prominent eyes and the prothorax without lateral keels distinguish this genus from *Decticus*.

1. Dexerra turpis.

Mas. *Sordide testacea, fusco subconspersa; caput inter oculos fuscescente uninotatum; antennæ piceæ, basi fulvæ; femora transverse striata, olivaceo suffusæ.*

Male. Dingy testaceous, slightly speckled with brown. Head with a brownish mark between the eyes. Antennæ piceous, tawny towards the base. Femora with a pale olive-green tinge, transversely striated on each side. Length of the body 7 lines.

a. Australia. Presented by the Haslar Hospital.

Genus 57. NATRICIA.

Mas et fœm. Corpus robustum, breve. Caput prothorace paullo angustius, spina parva obtusa inter oculos armatum, spatio inter antennas perangusta; frons perparum obliqua. Oculi globosi. Palporum articulus 3us 4o multo longior; 5us subclavatus, 3o multo longior. Antennæ longissimæ, gracillimæ, subpubescentes. Prothorax margine postico rotundato, sulco longitudinali tenuissimo sulcoque transverso angulato, carinis lateralibus indeterminatis. Abdomen prothorace plus duplo longius. Oviductus brevis, latus, arcuatus. Pedes graciles, femoribus quatuor anterioribus uniseriatim quadrispinosis, femoribus tibiisque posticis biseriatim spinosis. Alæ brevissimæ.

Male and female. Body stout, short. Head a little narrower than the prothorax, with a minute rounded spine between the eyes; space between the antennæ very narrow, angular towards the spine before mentioned; front very slightly oblique. Eyes prominent, moderately large. Palpi slender; third joint of the maxillary palpi much longer than the fourth; fifth subclavate, much longer than the third. Antennæ very long and slender, very minutely pubescent. Prothorax with a very slight longitudinal furrow and with an angular transverse middle furrow; lateral keels not defined; sides much rounded; hind border rounded. Abdomen a little

more than twice the length of the prothorax. Oviduct broad, curved, less than one-fourth of the length of the abdomen. Legs slender; fore femora with four minute spines in a row beneath; middle femora also with four spines, but much more minute; hind femora with two rows of several minute spines; hind tibiæ with two rows of numerous minute spines; third joint of the tarsi dilated. Fore wings about one-third of the length of the abdomen. Hind wings shorter.

It has a great resemblance to *Lucera*, but the structure is very different.

1. NATRICIA OCHRACEA.

Mas et fœm. *Ochraceus, subtus pallidior; alæ concolores.*

Male and female. Ochraceous, paler beneath. Head toward the mouth and palpi paler. Eyes piceous. Wings like the body in colour. Length of the body 6—6½ lines.

a, b. China. Presented by J. C. Bowring, Esq.

Genus 58. INSARA.

Fœm. Corpus gracile. Caput prothorace vix angustius; carinula antica plana; frons erecta, margine antico inciso; labrum magnum. Oculi elliptici, valde convexi. Palpi maxillares pubescentes; articulus 3us 4o valde longior; 5us 3o valde longior. Antennæ gracillimæ, corpore duplo longiores. Prothorax dorso plano postice dilatato, carinis lateralibus bene determinatis, margine postico rotundato, lateribus deflexis valde rotundatis. Abdomen compressum, prothorace duplo longius, segmentorum marginibus posticis unispinosis. Oviductus valde arcuatus, abdominis dimidio non longior. Pedes graciles; femora uniseriatim spinosa; tibiæ quatuor anteriores biseriatim spinosæ; tibiæ posticæ quadriseriatim spinosæ. Alæ anticæ angustæ, venis transversis paucis. Alæ posticæ amplæ.

Female. Body slender. Head shining in front, nearly as broad as the prothorax, with a little flat keel between the antennæ, which are approximate; front erect, its fore border excavated in the middle; labrum large. Eyes elliptical, very prominent. Maxillary palpi pubescent; third joint much longer than the fourth; fifth subclavate, much longer than the third. Antennæ very slender, about twice the length of the body. Prothorax with the flat dorsum contracted near the fore border, dilated hindward; lateral keels strongly marked; deflexed sides much rounded; hind border rounded. Abdomen compressed, twice the length of the prothorax; hind borders of the segments in the middle from the first to the apical one successively more elongated into spines. Oviduct very deep, very much curved upward, about half the length of the abdomen. Legs slender; four anterior femora with two minute spines beneath near the tips; hind femora incrassated for less than half the length from the base, with a single row of three minute spines beneath; four anterior tibiæ with two rows of a few slender spines beneath; fore tibiæ much dilated near the base; hind tibiæ with numerous spines in two rows. Wings long. Fore wings narrow, with very few transverse veins. Hind wings broad, a little longer than the fore wings; transverse veins numerous, especially along the exterior border, where there are intermediate longitudinal veins.

1. Insara strigulata.

Fœm. *Testacea, fusco aut nigro confertissime conspersa, verticis disco et prothoracis dorso non conspersis; antennæ piceæ, testaceo fasciatæ; prothorax nigro bivittatus; abdomen fuscum; pedes nigro conspersi et fasciati; alæ anticæ obscure cinereæ, fusco conspersæ, nigro punctatæ et strigulatæ; alæ posticæ cinereæ, nigro venosæ.*

Female. Testaceous, very thickly speckled with brown or with black. Disk of the vertex, keel between the antennæ and flat part of the prothorax unspeckled. Eyes livid. Antennæ piceous, with some testaceous bands. Prothorax with a black stripe along each keel. Abdomen and oviduct brown. Legs with black speckles and irregular bands. Fore wings dark cinereous, speckled with brown and varied also with several black points near the base and with some exterior little black streaks. Hind wings cinereous; veins black. Length of the body 8 lines; expansion of the fore wings 24 lines.

a. Oajaca, Mexico. From M. Sallé's collection.
b. Orizaba. From M. Sallé's collection.

Genus 59. ORCHELIMUM.

Orchelimum, *Serv. Hist. Orth.* 522.

1. Orchelimum vulgare.

Pterophylla agilis, *Harr. Cat. Ins. Mass.* 56—Orchelimum vulgare, *Harr. Rep.* 3rd Ed. 162, f. 77. *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 452.

a. United States. Presented by F. Walker, Esq.

2. Orchelimum concinnum.

concinnum, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 452.

Cape Cod.

3. Orchelimum glaberrimum.

Xiphidium glaberrimum, *Burm. Handb. Ent.* ii. 707—Orchelimum glaberrimum, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 453.

Connecticut. Georgia.

4. Orchelimum agile.

Locusta agilis, *Deg. Ins.* iii. 457, pl. 40, f. 3—Xiphidium agile, *Burm. Handb. Ent.* ii. 707—Orchelimum agile, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 453.

Illinois. Maryland.

5. Orchelimum longipennis.

longipennis, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 453.

Texas.

6. Orchelimum glaucum.

glaucum, *Serv. Hist. Orth.* 524.

North America.

7. Orchelimum herbaceum.

herbaceum, *Serv. Hist. Orth.* 524.

a. United States. Presented by F. Walker, Esq.

8. Orchelimum cuticulare.

cuticulare, *Serv. Hist. Orth.* 523.

Genus 60. XIPHIDIUM.

Locusta, *Fabr.*, *Charp.*, *Panz.*—Xiphidium, *Serv. Rev.* 62; *Hist. Orth.* 505. *Brullé*, *Burm. Handb. Ent.* ii. 707. *Fisch. de W. Orth. Ross.* 177. *De Borck.*—Anisoptera? *Latr.*, *Wesm.*

Europe and North Africa.

1. Xiphidium fuscum.

Locusta fusca, *Fabr. Ent. Syst.* ii. 43. *Latr. Hist. Nat.* xii. 132; *Gen.* iii. 101. *Panz. Faun.* 33, 2. *Charp. Hor. Ent.* 111. *Philippi*, *Orth. Berol.* 19, pl. 1, f. 2—Xiphidion fuscum, *Serv. Rev.* 62; *Hist. Orth.* 506—Xiphidium fuscum, *Burm. Handb. Ent.* ii. 708. *Fisch. Mannh. Jahr.* 15, 49. *Steph. Ill. Brit. Ent. Mand.* vi. 14. *Fisch. de W. Orth. Ross.* pl. 8, f. 3. *Fisch. Orth. Eur.* 247.

a. Italy. Presented by Dr. Leach.
b, *c*. France. From Prof. Westwood's collection.

2. Xiphidium dorsale.

Locusta dorsalis, *Latr. Hist. Nat.* xii. 133. *Charp. Hor. Ent.* 112, pl. 2, f. 4. *Philippi*, *Orth. Ber.* 19, pl. 1, f. 8—Locusta fusca, *Zett. Orth. Suec.* 60—Anisoptera dorsalis? *Latr. Fam. Nat.* 413. *Fisch. de W. Bull. Mosc.* vi. 372—Xiphidium dorsale, *Burm. Handb. Ent.* ii. 708. *De Borck*, *Rätv. Ins.* 60. *Steph. Ill. Brit. Ent. Mand.* vi. 14. *Fisch. Orth. Eur.* 248, pl. 14, f. 4.

a, *b*. England. Presented by J. C. Dale, Esq.
c—*h*. England. From Mr. Stephens' collection.
i, *j*. England.

3. Xiphidium thoracicum.

thoracicum, *Fisch. de W. Orth. Ross.* 179, pl. 8, f. 4—*Fisch. Orth. Eur.* 249.

South Russia.

4. Xiphidium concolor.

———, *Savigny, Descr. Egypt, Orth.* pl. 4, f. 2. 3—Xiphidium concolor, *Burm. Handb. Ent.* ii. 708, thoracicum?—Locusta hastata? *Charp. Hor. Ent.* 113. Hungary.

Egypt.

5. Xiphidium stramineum.

Locusta (Xiphidium) straminea, *Klug, Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 189.

Egypt.

America.

6. Xiphidium fasciatum.

Locusta fasciata, *Deg. Ins.* iii. 458, pl. 40, f. 4—Pterophylla fasciata, *Harr. Cat. Ins. Mass.* 56—Orchelimum gracile, *Harr. Rep.* 3rd Ed. 163, f. 78—Xiphidium fasciatum, *Serv. Ann. Sci. Nat.* xxii. 159. *Burm. Handb. Ent.* ii. 708. *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 451.

a. United States. Presented by E. Doubleday, Esq.
b—c. North America. Presented by F. Walker, Esq.
f, g. Nova Scotia. From Lieut. Redman's collection.
h. Mexico.

7. Xiphidium brevipenne.

brevipennis, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 451.

United States.

8. Xiphidium ensiferum.

ensifer, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 451.

Illinois.

9. Xiphidium mexicanum.

mexicanum, *Sauss. Rev. Zool.* 1859, xi. 207.

The specimen recorded is referred with doubt to *X. mexicanum.*

a. Oajaca, Mexico. From M. Sallé's collection.

10. Xiphidium saltator.

saltator, *Sauss. Rev. Zool.* 1859, xi. 207.

Guyana.

11. Xiphidium grande.

Mas. *Testaceum, vitta ferruginea nigro antice marginata ; palporum articuli 3us et 4us subæquales, 5us 4o valde longior ; abdomen plaga apicali nigricante, femora quatuor anteriora uniseriatim spinosa ; femora postica biseriatim spinosa ; tibiæ quatuor anteriores biseriatim sexspinosæ ; tibiæ posticæ quadriseriatim spinosæ.*

Male. Testaceous, smooth, shining, with a ferruginous dorsal stripe which on the head and prothorax is bordered with black. Head with the

stripe lanceolate, extending from the tip of the horn between the eyes to the hind border. Eyes round, prominent. Third and fourth joints of the maxillary palpi about equal in length; fifth much longer than the fourth. Prothorax elongate, with the stripe widening very slightly from the fore border to the hind border. Abdomen with a linear stripe, which is paler near the tip, where there is a blackish patch; apical appendages large. Fore femora with two minute spines beneath, three beneath the middle femora; hind femora with one row of seven spines and with another of two; four anterior tibiæ with six spines on each side; hind tibiæ with four rows of spines, most of which are in the two upper rows. Fore wings with many tawny points and with a brown streak along the basal part of the interior border; tympanum pellucid. Hind wings pellucid, a little shorter than the fore wings; veins pale. Length of the body 10½ lines; expansion of the fore wings 31 lines.

a. Demerara. From Mr. Bowers' collection.

12. XIPHIDIUM PRÆCIPUUM.

Pallide testaceum; caput et prothorax nigro univittata; frons obliqua; antennæ fulvæ, basi testaceæ; femora quatuor anteriora trispinosa; tibiæ quatuor anteriores biseriatim spinosæ; alæ anticæ vitta postica nigricante; alæ posticæ diaphanæ.

Pale testaceous, paler beneath. Head with a black lanceolate stripe on the vertex and with a porrect obtuse spine extending from between the eyes; front oblique. Eyes prominent. Antennæ tawny, testaceous at the base. Prothorax with a broad black stripe, which is narrower in front. Four anterior femora beneath with a single row of three minute black-tipped spines; four anterior tibiæ with five spines on each side beneath. Wings much longer than the body. Fore wings with a blackish stripe extending for less than half the length along the hind border. Hind wings pellucid. Length of the body 9? lines; of the fore wings 33 lines.

The specimen described is mutilated. The spines on the anterior tibiæ are much stouter than those of *X. fuscum* and of *X. fasciatum;* the spine between the eyes is more porrect than that of *X. fuscum* and more acuminated than that of *X. fasciatum.*

a. Demerara. From Mr. Bowers' collection.

West Africa.

13. XIPHIDIUM CONTINUUM.

Fœm. *Viride, rufescente univittatum; antennæ piceæ, basi virides; oviductus fulvus, arcuatus, abdomine multo brevior; alæ anticæ pallide fuscæ, vitta subcostali e guttis obscurioribus, apud costam diaphanæ viridi venosæ; alæ posticæ diaphanæ, longiores, fusco venosæ, apud costæ apicem subfuscescentes.*

Female. Grass-green, in structure like *X. fuscum.* Body with a reddish stripe, which widens from between the antennæ to the hind border of the prothorax and is continued from thence to the tip of the abdomen. Eyes livid. Antennæ piceous, green at the base. Oviduct tawny, curved upward, much shorter than the abdomen. Fore wings pale brown, with a subcostal stripe of darker brown dots; costal space pellucid, with pale

green veins. Hind wings pellucid, a little longer than the fore wings; veins brown; a slight brownish tinge along the tip of the costa. Length of the body 6 lines; expansion of the fore wings 15 lines.

The oviduct is much shorter than that of *X. Iris*.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

South Africa.

14. Xiphidium punctipenne.

Fœm. *Testaceum; caput et prothorax vittis duabus fuscis antice approximatis; caput albo bilineatum; antennæ nigricantes; prothoracis lineæ lutescente marginatæ; pectus albidum; abdomen vitta dorsali fusca; oviductus subarcuatus, abdomine paullo longior; alæ pallidissime cinereæ; alæ antice linea e guttis parvis nigris; alæ posticæ longiores.*

Female. Testaceous, like *X. fuscum* in structure. Head and prothorax with two brown lines which diverge from the fore border of the head to the hind border of the prothorax. Head with a white line on each side between the brown line and the eye. Eyes piceous. Antennæ blackish, testaceous at the base. Prothorax with a luteous tinge along the outer side of each brown line. Pectus whitish. Abdomen with a brown dorsal stripe. Oviduct slightly curved upward, a little longer than the abdomen. Wings very pale corneous, veins pale. Fore wings with a line of small black dots, which extends in the disk from near the base to rather beyond half the length. Hind wings somewhat longer than the fore wings. Length of the body 6½ lines; expansion of the fore wings 19 lines.

a. South Africa. From Mr. Argent's collection.

15. Xiphidium tenue.

Mas. *Viride, gracillimum; caput et prothorax vitta ferruginea flavo marginata; antennæ piceæ, basi fulvæ; abdomen vitta pallide lutea; alæ pallide cervinæ, apud costam diaphanæ viridi venosæ; alæ posticæ longiores.*

Male. Grass-green, slender. Head and prothorax with a ferruginous stripe, which is bordered with pale yellow on the outer side. Eyes brown. Antennæ piceous, tawny towards the base. Abdomen with a pale luteous stripe. Wings pale fawn-colour, pellucid and with green veins along the costa. Hind wings somewhat longer than the fore wings. Length of the body 6½ lines; expansion of the fore wings 19 lines.

The body is more slender than that of *X. fuscum*.

a. South Africa. Presented by Sir A. Smith.

16. Xiphidium tenellum.

Fœm. *Testaceo-viride; caput et prothorax e lituris nonnullis rufis subvittata; antennæ piceæ; oviductus rectus, abdomini æquilongus; alæ diaphanæ, venis pallide viridibus; alæ posticæ longiores.*

Female. Testaceous-green. Head and prothorax with a very incomplete or almost obsolete stripe indicated by some red marks on each

side. Eyes testaceous. Antennæ piceous, testaceous towards the base Oviduct straight, as long as the abdomen. Wings pellucid; veins pale green. Hind wings somewhat longer than the fore wings. Length of the body 8 lines; expansion of the fore wings 20 lines.

It may prove to be the female of *X. tenue.*

a, *b*. Natal. From M. Gueinzius' collection.

Sect. n.

Fœm. Corpus gracile, apterum. Frons subobliqua. Oculi sat parvi, non globosi. Antennæ gracillimæ. Prothorax lateribus obtuse angulatis, callis duobus posticis, margine postico recto. Abdomen lanceolatum, prothorace angustius et duplo longius. Oviductus rectus, basi arcuatus, corpore vix duplo longior. Pedes graciles; femora postica dimidio basali incrassata; tibiæ quatuor anteriores biseriatim quinquespinosæ; tibiæ posticæ quadriseriatim spinulosæ.

Female. Body slender, smooth, shining. Head full as broad as the prothorax, prominent, narrow and rounded between the antennæ; front flat, slightly oblique, narrow towards the vertex, with an indistinct transverse furrow between it and the face. Eyes rather small, not prominent. Antennæ very slender. Prothorax not elongated hindward; hind border straight; lateral keels not defined; sides obtusely angular; a callus on each side of the hind border. Abdomen lanceolate, narrower than the prothorax and full twice its length. Oviduct straight, curved at the base, almost twice the length of the body. Legs slender; four anterior tibiæ with five minute spines on each side; hind femora and hind tibiæ long; hind femora incrassated for half the length from the base; hind tibiæ with four rows of very minute spines and with minute apical spurs. Wings none.

17. Xiphidium caudale.

Fœm. *Viridi-testaceum, vittis duabus pallidioribus ferrugineo submarginatis; antennæ fulvæ, basi viridescentes; oviductus fulvus.*

Female. Greenish testaceous, probably grass-green when alive. Vertex, prothorax and dorsum of the abdomen with two paler stripes, which are incompletely and irregularly bordered with ferruginous on the inner side. Antennæ tawny, pale greenish at the base. Oviduct tawny. Tarsi black towards the tips. Length of the body 8 lines.

a. Natal. From M. Gueinzius' collection.

18. Xiphidium Iris.

Xiphidion Iris, *Serv. Hist. Orth.* 506—Xiphidium Iris, *Stal, Eng. Resa*, 323.

a, *b*. Mauritius. From Dr. Beke's collection.

South Asia.

19. Xiphidium exemptum.

Fœm. *Testaceum; palporum articuli 3us et 4us subæquales, 5us multo longior; antennæ apices versus piceæ; oviductus perparum arcuatus, corpore vix brevior; alæ diaphanæ, pallido venosæ.*

Female. Testaceous, smooth, shining. Head with a conical, porrect, slender, rounded protuberance between the antennæ. Eyes nearly round, very prominent. Third and fourth joints of the maxillary palpi about equal in length; fifth much longer than the fourth. Antennæ piceous towards the tips. Oviduct very slightly curved, almost as long as the body. Wings pellucid, much longer than the body; longitudinal veins testaceous; transverse veins white. Hind wings rather longer than the fore wings. Length of the body 8 lines; expansion of the fore wings 23 lines.

a. Corea. Presented by Capt. Sir E. Belcher.

20. Xiphidium posticum.

Fœm. *Viridi-testaceum; palporum articulus 4us 3o et 5o paullo longior; antennæ piceæ, basi pallidæ; prothorax vitta pallide fusca nigro marginata; oviductus fere rectus, abdomine vix brevior; femora quatuor anteriora uniseriatim spinulosa; femora postica biseriatim spinulosa; tibiæ quatuor anteriores biseriatim spinosæ; tibiæ posticæ quadriseriatim spinulosæ; alæ anticæ virides, latiusculæ, vitta postica fusca lanceolata; alæ posticæ diaphanæ, pallido venosæ.*

Female. Greenish testaceous, slender, smooth, shining. Head as broad as the prothorax, with a short, porrect, compressed, acute horn between the antennæ; front long, erect; labrum short. Mandibles with black tips. Eyes brown, nearly round, very prominent. Fourth joint of the maxillary palpi a little longer than the third and than the fifth, which is subclavate. Antennæ piceous, pale towards the base, full twice the length of the body. Prothorax with a pale brown stripe which occupies the flat part and is broader hindward, and is bordered by a black line on each keel; sides and hind border slightly rounded. Oviduct almost straight, full as long as the abdomen. Four anterior femora with a single row of very minute spines; hind femora with two rows of small spines; four anterior tibiæ with six long spines on each side; hind tibiæ with four rows of short slender spines. Fore wings green, rather broad, a little longer than the hind wings, with a brown lanceolate stripe which extends from the base along two-thirds of the length of the interior border. Hind wings pellucid; veins pale. Length of the body 11 lines; expansion of the fore wings 26 lines.

a. Silhet. From Mr. Argent's collection.

Australasia.

21. Xiphidium longipenne.

Locusta (Xiphidium) longipennis, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 189.

Banjermassing.

22. XIPHIDIUM LEPIDUM.

Locusta (Xiphidium) lepida, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 189.

Java.

23. XIPHIDIUM MELÆNUM.

Locusta (Xiphidium) melæna, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 189.

Java.

24. XIPHIDIUM FUSCESCENS.

Locusta (Aprion) fuscescens, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 206.

Java.

25. XIPHIDIUM? BREVIFOLIA.

Locusta (Aprion) brevifolia, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 207, pl. 19, f. 3.

Java.

26. XIPHIDIUM MACULATUM.

maculatum, *Le Guillou*, *Rev. Zool.* 1841, 294.

Macassar.

27. XIPHIDIUM AMABILE.

amabile, *Stal. Eug. Resa*, 323.

Manilla.

Australia.

28. XIPHIDIUM BILINEATUM.

bilineatum, *Erichs. Archiv.* 1842, 249.

Tasmania.

29. XIPHIDIUM ALBESCENS.

Fœm. *Albidum; caput fusco vittatum; antennæ piceæ, basi albidæ; prothorax vitta fusca lineas duas pallidiores includente; abdomen segmentorum marginibus posticis ventreque fulvis; oviductus fulvus, fere rectus, corpore paullo longior; alæ pallidissime cinereæ; alæ anticæ vitta costali brevi nigra; alæ posticæ longiores.*

Female. Whitish, in structure like *X. fuscum*. Head and prothorax with a dark brown stripe which is bordered with white on the outer side, and is broadest in the prothorax, where it includes two pale brown lines. Eyes livid. Antennæ piceous, whitish at the base. Abdomen with a tawny band on the hind border of each segment; ventral segments tawny. Oviduct tawny, almost straight, a little longer than the body. Wings very pale cinereous; veins pale. Fore wings with a black costal stripe, extending from the base to somewhat beyond half the length. Hind wings

somewhat longer than the fore wings. Length of the body 6 lines; expansion of the fore wings 14 lines.

a. South Australia. Presented by R. Bakewell, Esq.

New Zealand.

30. Xiphidium Maoricum.

Fœm. *Viride; vertex et prothorax vitta fusca flavo marginata; caput cornu antico brevi rotundato subascendente; antennæ fuscæ, basi virides; prothorax carinis lateralibus non determinatis, margine postico subrotundato; abdomen ferrugineum; cerci nigri; oviductus fuscus, abdomine longior; pedes graciles, femoribus posticis uniseriatim spinulosis, tibiis quatuor anterioribus biseriatim spinosis, tibiis posticis quadriseriatim spinulosis; alæ anticæ pallide virides, corpore longiores, striga costali nigra; alæ posticæ diaphanæ, longiores.* Var. *β*.—*Testaceum; prothoracis vitta e lineis duabus interruptis fuscis.*

Female. Grass-green. Prothorax and vertex of the head with a brown stripe which is narrower towards the fore border of the prothorax and is lanceolate on the vertex, and is bordered with pale yellow on the outer side. Head with a slightly ascending rounded protuberance between the antennæ. Eyes prominent. Antennæ brown, green at the base. Prothorax much dilated and obtusely angular in the middle on each side; lateral keels not defined; hind border slightly rounded. Mesothorax, metathorax and abdomen mostly ferruginous. Cerci black. Oviduct brown, paler towards the tip, longer than the abdomen. Legs slender; hind femora with a single row of five very minute black spines; four anterior tibiæ with a few small spines on each side beneath; hind tibiæ with numerous very minute spines in four rows. Fore wings pale green, longer than the body, with a black streak along the basal part of the costa. Hind wings pellucid, longer than the fore wings. *Var. β*.—Testaceous. Prothorax with the stripe only indicated by two interrupted brown lines. Length of the body 7½ lines; of the wings 22 lines.

Male? Grass-green, short, smooth, shining. Prothorax and vertex of the head with a brown stripe which is forked hindward in the former. Head slightly ascending, prominent and rounded between the antennæ; fore part oblique; front and face large, separated by a slight transverse suture. Eyes brown, irregularly tessellated with testaceous, rather large and prominent. Antennæ testaceous, with numerous brown rings. Prothorax partly testaceous in the disk, which has an irregular brown mark on each side; lateral keels not defined; sides much dilated, obtusely angular, partly bordered with brown; hind border rounded. Abdomen whitish, much longer than the prothorax, with a broad black stripe which occupies the whole of the tip. Cerci black, rather long. Legs testaceous; femora minutely reddish-speckled; hind femora beneath with a line of four minute black spines; four anterior tibiæ with two rows of minute spines beneath; hind tibiæ with two rows of numerous minute black spines beneath and with a few of the same above, their apical spurs very short. Fore wings pellucid, as long as the abdomen, with a black costal stripe along half the

length from the base; veins pale testaceous. Length of the body 6 lines.

a, *b*. New Zealand. Presented by Col. Bolton.
c. New Zealand. Presented by the Rev. W. Colenso.

Oceania.

31. XIPHIDIUM OCEANICUM.

oceanicum, *Le Guil. Rev. Zool.* 1841, 293.

Hamoa.

32. XIPHIDIUM TRIVITTATUM.

trivittatum, *Stal*, *Eug. Resa*, 323.

Isle Tahiti.

Country unknown.

33. XIPHIDIUM VALIDUM.

Fœm. *Viride; caput vitta fusca nigricante marginata palporum articulus 3us 4o perparum longior; 5us 4o sat longior; antennæ piceæ; prothorax vitta lata testacea lineas duas nigras includente postice abbreviata; abdominis dorsum testaceum; oviductus fulvus, valde arcuatus, abdomine longior; tibiæ supra fuscescentes; alæ diaphanæ; alæ anticæ vitta postica lurida, alæ posticæ perpallo longiores.*

Female. Grass-green, in structure like *X. fuscum*. Head with a brown stripe widening from between the eyes to the hind border and bordered with blackish. Eyes testaceous, prominent, slightly elliptical. Third joint of the maxillary palpi very little longer than the fourth; fifth rather longer than the third. Antennæ piceous, testaceous at the base. Prothorax with a broad testaceous stripe which is much abbreviated towards the hind border and includes two black stripes. Abdomen testaceous above. Cerci green. Oviduct tawny, much curved, rather longer than the abdomen. Tibiæ brownish above; tips of the four anterior tibiæ pale green. Wings pellucid; veins green. Fore wings with a lurid stripe beyond the middle along the interior border. Hind wings very little longer than the fore wings. Length of the body 8 lines; expansion of the fore wings 19 lines.

This species is somewhat stouter than *X. fuscum*, and the oviduct is more curved.

a. ——— ? Presented by the Entomological Club.

Genus 61. LETANA.

Mas. Corpus lineare, gracillimum. Caput prothorace vix angustius, inter antennas subcarinatum; frons erecta. Oculi magni, brevi-elliptici, valde globosi. Palporum articulus 3us 4o multo longior. Antennæ gracillimæ, corpore duplo longiores. Prothorax dorso plano, sulco longitudinali sulcisque duabus transversis, lateribus margineque postico subrotundatis. Sexualia maximum. Cerci cylindrici, longissimi, basi incrassati.

Pedes longi, gracillimi; femora postica basi subincrassata; tibiæ anticæ trispinosæ; tibiæ intermediæ biseriatim spinosæ; tibiæ posticæ triseriatim spinosæ. Alæ anticæ longæ, angustæ.

Male. Body linear, very slender. Head convex above, nearly as broad as the prothorax, with a slight keel between the antennæ, which are approximate; front shining, erect. Eyes large, short-elliptical, very prominent. Palpi slender; apical joint very slightly thicker towards the tip. Third joint of the maxillary palpi much longer than the fourth; fifth much longer than the third. Antennæ very slender, about twice the length of the body. Prothorax flat above, a little broader hindward, with two slight transverse furrows and with one slight longitudinal furrow; lateral keels slightly defined; sides and hind border slightly rounded, the latter notched on each side. Abdominal appendages very large; cerci cylindrical, very long, incrassated at the base; two long, slender, recurved appendages beneath. Legs long, very slender; hind femora slightly incrassated towards the base; fore tibiæ with a single row of three minute spines; middle tibiæ with two rows of several minute spines; hind tibiæ with three rows of spines. Fore wings very narrow, thickly reticulated, rather shorter than the hind wings; tympanum at the inner base of the right wing rather large. Hind wings ample.

The different structure of the protuberance between the antennæ distinguishes this genus from *Xiphidium*.

1. Letana linearis.

Mas. *Flava; caput vertice plagisque quatuor nigricantibus aut rufescentibus; antennæ nigræ; prothorax vitta lata nigra aut rufa nigro-marginata vittisque duabus lateralibus nigris; abdomen vitta nigra lata interrupta; pedes testacei aut virides, nigro varii; alæ anticæ fuscæ vitta costali diaphana viridi venosa nigro-marginata; alæ posticæ cinereo hyalinæ, nigricante venosæ.*

Male. Yellow. Head with the disk of the vertex blackish or reddish, and with two patches of the same hue on each side. Eyes livid. Antennæ black; first joint partly yellow. Prothorax with a broad black or red black-bordered stripe in the middle, and with an irregular black stripe on each side. Abdomen with a broad blackish stripe, which is more or less interrupted on the hind border of each segment. Legs testaceous or green; femora with black tips; four anterior femora more or less speckled with black; four anterior tibiæ black, sometimes green; hind tibiæ dark green or black, sometimes with a whitish band near the base; tarsi black or dark green. Fore wings brown, with a pellucid costal stripe in which the veins are pale green; this stripe is bordered with black on its hind side towards the base; tympanum of the right wing pellucid. Hind wings cinereous, hyaline, iridescent; veins blackish. Length of the body 6—7 lines; expansion of the fore wings 20—22 lines.

a. North Hindostan. From Dr. Hooker's collection.
b, c. North Hindostan. From Capt. Reid's collection.
d. Mussoorie. Presented by Sir J. Hearsay.

Genus 62. MECONEMA.

Locusta, *Fabr.*—Gryllus, *Sulzer*, &c.—Meconema, *Serv. Rev.*; *Hist. Orth.* 503. *Brullé*, *Hist. Nat. Ins.* ix. *Burm. Handb. Ent.* ii. 682. *De Borck. Fisch. de W. Orth. Ross.* 174. *Fisch. Orth. Eur.* 240.

1. Meconema varia.

Locusta varia, *Fabr. Ent. Syst.* ii. 42. *Panz. Faun.* xxxiii. f. 1. *Charp. Hor. Ent.* 110. *Latr. Hist. Nat.* xii. 131. *Zett. Orth. Suec.* 62? *Rossi. Faun. Etr.* i. 267. *Philippi*, *Orth. Berol.* 20, pl. 1, f. 3—Gryllus viridissimus minor, *Sulz. Abgek. Gesch.* pl. 8, f. 9—Gryllus arboreus, *Fuessly*, *Verz. Schw. Ins.* 22—Locusta thalassima, *Deg. Ins.* iii. 433—Locusta nana, *Stoll. Saut. et Gryll.* pl. 13 a. f. 55—Conocephalus varius, *Thunb. Mem.* v. 274—Gryllus varius, *Don. Brit. Ins.* iii. pl. 79, f. 1—Meconema varia, *Serv. Rev.* 61; *Hist. Orth.* 594. *Brullé*, *Hist. Nat. Ins.* ix. 151, pl. 15, f. 2. *Burm. Handb. Ent.* ii. 682. *Fisch. de W. Orth. Ross.* 176, pl. 8, f. 6—Meconema varium, *Fisch. Orth. Eur.* 240, pl. 12, f. 19, 20.

a—c. England. Presented by J. C. Dale.
f—p. England. From Mr. Stephens' collection.
q—t. England.
u. France. From Prof. Westwood's collection.

2. Meconema subpunctata.

subpunctatum, *Motsch. Bull. Soc. Nat. Mosc.* xxxix. 181.

Japan.

3. Meconema albicornis.

albicorne, *Motsch. Bull. Soc. Nat. Mosc.* xxxix. 181.

Japan.

4. Meconema brevipennis.

brevipennis, *Yersin*, *A. S. E. F.* viii. 517.

Hyeres.

Genus 63. LADNEA.

Fœm. Corpus gracile. Caput inter antennas subcarinatum; frons erecta; labrum fere rotundum. Oculi globosi. Palporum articulus 3us 4o multo longior; 5us 3o valde longior. Prothorax transverse bisulcatus, sulco postico angulato, lateribus subrotundatis, margine postico recto utrinque inciso. Vagina valde arcuata, supra subtusque serrata, abdomine paullo brevior. Pedes gracillimi, femoribus posticis tibiisque quatuor anterioribus parce spinulosis, illis basi incrassatis, tibiis posticis quadriseriatim spinulosis. Alæ anticæ abdomen superantes, conferte reticulatæ. Alæ posticæ paullo breviores.

Female. Body slender. Head as broad as the prothorax, with a minute keel between the antennæ; front erect; labrum nearly round. Eyes prominent. Third joint of the maxillary palpi much longer than the

fourth; fifth very much longer than the third. Antennæ slender. Prothorax with two transverse furrows, the hinder one angular; sides slightly rounded; hind border straight, slightly notched on each side. Sheaths of the oviduct broad, much curved, a little shorter than the abdomen, serrated towards the tip beneath and for half the length from the tip above. Legs very slender; hind femora incrassated towards the base, with a few minute spines beneath like those of the four anterior tibiæ; hind tibiæ with many minute spines in four rows. Wings extending a little beyond the abdomen. Fore wings thickly and irregularly reticulated, a little longer than the hind wings.

This genus may be distinguished by the much more prominent rim round the insertion of the antennæ and by the wings from *Odontura*, with which it agrees in the structure of the sheaths of the oviduct.

1. LADNEA PUNCTIPES.

Fœm. *Pallide ochracea, subtus flavescens; caput et prothorax ferrugineo late univittata; labrum album; antennæ nigro annulatæ, basi rufo variæ; pedes rufo aut nigro conspersi; alæ posticæ diaphanæ, rufescente venosæ.*

Female. Pale ochraceous, yellowish beneath. Head and prothorax with a broad ferruginous stripe. Labrum white. Antennæ with black rings; first and second joints partly red. Femora and four anterior tibiæ speckled with red or with black. Hind wings pellucid; veins reddish. Length of the body 9 lines; expansion of the fore wings 15 lines.

a. North Hindostan. From Dr. Hooker's collection.

Genus 64. LANCIANA.

Mas. Corpus robustum, læve. Caput prothorace paullo latius, inter antennas subcarinatum; frons perparum obliqua; labrum breve, latum. Oculi parvi, globosi, fere rotundi. Palporum articulus 3us 4o multo longior; 5us subclavatus, 4o paullo longior. Antennæ basi approximatæ, corpore plus duplo longiores. Prothorax transverse bisulcatus, lateribus fere rectis postice rotundatis, margine postico subrotundato. Abdomen subcompressum, prothorace plus duplo longius; sexualia minima. Pedes sat graciles, femoribus posticis subtus spinulosis, genubus posticis calcaratis, tibiis quatuor anterioribus biseriatim spinulosis, tibiis posticis quadriseriatim spinulosis. Alæ anticæ coriaceæ, venis transversis plurimis, inordinatis, margine interiore basi dilatato, tympano parvo. Alæ posticæ amplæ, paullo breviores.

Male. Body stout, smooth. Head a little broader than the prothorax; fore part shining; a short porrect keel between the antennæ, rounded in front; front very slightly oblique; labrum short, broad. Eyes small, prominent, nearly round. Third joint of the maxillary palpi much shorter than the fourth; fifth subclavate, a little longer than the fourth. Antennæ approximate at the base, more than twice the length of the body. Prothorax with two slight transverse furrows, the fore one slightly curved; sides nearly straight, rounded hindward; hind border slightly rounded. Abdomen slightly compressed, more than twice the length of the prothorax; apical appendages very small. Cerci moderately long. Legs

rather slender; hind femora with a few minute spines beneath; hind knees with a spur beneath; four anterior tibiæ with six minute spines on each side beneath; hind tibiæ with numerous minute spines in four rows. Fore wings coriaceous, rather longer than the hind wings; transverse veins very numerous and irregular; interior border dilated at the base; tympanum small. Hind wings ample.

This genus may be distinguished from *Decticus* by the slender keel between the antennæ, and by the rounded prothorax without lateral keels.

1. LANCIANA ALBIDICORNIS.

Mas. *Testaceo-cinerea; antennæ albidæ; abdomen fuscum, subtus fulvum; femora postica nigro univittata; tibiæ posticæ basi albidæ; alæ anticæ linea discoidali e punctis fuscis; alæ posticæ diaphanæ, pallido venosæ.*

Male. Testaceous-cinereous. Eyes lurid. Mandibles with brown tips. Antennæ whitish. Mesothorax, metathorax and abdomen brown, the latter tawny beneath. Hind femora with a black stripe on the outer side; hind tibiæ whitish at the base. Fore wings with a line of brown points in the disk. Hind wings pellucid; veins pale. Length of the body 9 lines; expansion of the fore wings 20 lines.

a. Australia. From Mr. Damel's collection.

Genus 65. PIURA.

Fœm. Corpus gracile, glabrum, nitens. Caput spina brevi valida porrecta carinata obtusa inter antennas instructum; frons erecta, longiusculæ; labrum sat longum. Oculi fere rotundi, valde globosi. Palpi maxillares longiusculi; articulus 3us 4o paullo brevior; 5us 3o paullo longior. Antennæ longæ, graciles. Prothorax longiusculus, supra planus, transverse quadrisulcatus, lateribus valde rotundatis, margine postico recto. Abdomen compressum, prothorace plus duplo longius. Oviductus vix arcuatus, abdomine brevior. Pedes longi, graciles; femora postica biseriatim spinulosa, basi incrassata; tibiæ quatuor anteriores biseriatim sexspinosæ; tibiæ posticæ quadriseriatim spinulosæ. Alæ anticæ longæ, coriaceæ, sat angustæ, confertissime reticulatæ. Alæ posticæ amplæ, paullo breviores.

Female. Body slender, smooth, shining. Head with a short, stout, porrect, keeled, obtuse spine between the antennæ; front erect, rather long; labrum elongate. Eyes nearly round, very prominent. Palpi pubescent; apical joint clavate, truncated at the tip. Maxillary palpi rather long; fourth joint a little longer than the third; fifth a little shorter than the fourth. Antennæ long, slender. Prothorax elongate, linear above, with four transverse furrows, of which the first and third are angular; the flat dorsal part much wider towards the hind border, which is straight; deflexed sides much rounded. Abdomen compressed, more than twice the length of the prothorax. Oviduct hardly curved, rather shorter than the abdomen. Legs slender, long; hind femora incrassated towards the base, with two rows of minute teeth beneath; four anterior tibiæ with six long spines on each side; these spines from the first pair to the last successively

decrease in length and are longer on the fore tibiæ than on the middle tibiæ; hind tibiæ with four rows of minute spines. Wings long. Fore wings rather narrow, cinereous, very thickly and irregularly reticulated, a little longer than the hind wings, which are ample.

It resembles *Xiphidium* in the structure of the head, and *Locusta* in the structure of the fore tibiæ.

1. Piura munda.

Fœm. *Testacea; vertex ferrugineus; antennæ nigro fasciatæ; prothoracis discus ferrugineus, nigro marginatus; oviductus apice fulvus; femora postica dimidio apicali, tibiæ tarsique ferruginea; alæ anticæ striga postica fusca; alæ posticæ diaphanæ, albido venosæ.*

Female. Testaceous. Vertex of the head ferruginous. Mandibles piceous. Antennæ with several black bands. Flat part of the prothorax ferruginous, bordered with black. Sheaths of the oviduct tawny towards the tip. Hind femora for half the length from the tips, tibiæ and tarsi ferruginous. Fore wings with a brown streak along nearly half the length of the interior border from the base. Hind wings pellucid; veins whitish, Length of the body 14 lines; expansion of the fore wings 38 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

Genus 66. LOCUSTA.

Locusta, *Fabr.*, *Serv. Hist. Orth.* 529. *Burm. Handb. Ent.* ii. 713. *Fisch. de W. Orth. Ross.* 147. *Fisch. Orth. Eur.* 250—Gryllus, *Linn.*—Acrida, *Curt.*—Phasgonura, *Westw.*, *Steph.*

1. Locusta viridissima.

——— ——— *Geoff. Ins. Par.* i. 398—Gryllus (Tettigonia) viridissimus, *Linn. Faun. Suec.* 869. *Stoll. Saut. et Grill.* pl. 23 b. f. 91. *De Geer, Ins.* iii. 277—Conocephalus viridissimus, *Thunb. Mém.* v. 278—Locusta viridissima, *Fabr. Ent. Syst.* ii. 41. *Sch. Icon.* pl. 91, f. 6; pl. 139, f. 3—5; pl. 247, f. 4, 5. *Roes. Ins.* ii. 65, pl. 10, 11. *Latr. Hist. Nat.* xii. 130; *Gen.* iii. 100. *Panz. Faun.* 89, f. 18, 19. *Zett. Orth. Suec.* 59. *Charp. Hor. Ent.* 108. *Brullé, Hist. Nat. Ins.* ix. 148, pl. 14, f. 4. *Philippi, Orth. Berol.* 18. *Serv. Hist. Orth.* 529. *Burm. Handb. Ent.* ii. 713. *Fisch. de W. Orth. Ross.* 148, pl. 4, f. 1. *Fisch. Orth. Eur.* 251, pl. 14, f. 5. *De Borck, Rätv. Ins.* 56, pl. 2, f. 2.—Phasgonura viridissima, *Westw. Classif. Steph. Ill. Brit. Ent. Mand.* vi. 16.

Japan.

a—h. England. From Mr. Stephens' collection.
i—k. England.
l. France.
m. Louvaine. Presented by Lady Seymour.

2. Locusta caudata.

Locusta caudata, *Charp. Orth.* pl. 33. *Fisch. Orth. Eur.* 252, pl. 14, f. 7 —Locusta longicauda, *Eversm. Addit.* pl. A, f. 2. *Kelch. Orth. Schles.?*—Locusta prasina, *Kollar, Kelch. Orth. Schles.?*—Conocephalus Kolenetii? *Fisch. de W. Orth. Ross.* 145, pl. 29, f. 1, 2.

Russia.

3. Locusta cantans.

Locusta cantans, *Fussby. Verz. Schw. Ins.* 23, f. 5. *Charp. Hor. Ent.* 109. *Burm. Handb. Ent.* ii. 719. *Fisch. de W. Orth. Ross.* 151, pl. 4, f. 6, 7 (Decticus cantans) *Fisch. Orth. Eur.* 253, pl. 14, f. 6—Locusta Gavorniensis, *Serv. Hist. Orth.* 530.

a, *b*. Italy. Presented by Dr. Leach.
c, *d*. ———?

4. Locusta thoracica.

thoracica, *Fisch. de W. Orth. Ross.* 150, pl. 28, f. 5.

Siberia.

5. Locusta? phyllopteroides.

Decticus phyllopteroides, *Fisch de W. Orth. Ross.* 173, pl. 28, f. 4.

Daouria.

6. Locusta Savignyi.

Savignyi, *Lucas, Expl. Alg. Zool.* iii. 14.

Algeria.

7. Locusta viticollis.

viticollis, *Blanch. Gay. Chile*, vi. 46.

Chili.

8. Locusta Loboensis.

Loboensis, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 216.

New Guinea.

9. Locusta? Sumatrana.

Sumatrana, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 216, pl. 19, f. 2.

Padang.

10. Locusta unicolor.

Hexacentrus unicolor, *Serv. Rev.* 49. *Burm. Handb. Ent.* ii. 714—Locusta unicolor, *Serv. Hist. Orth.* 531, pl. 9, f. 4.

Hindostan.

11. Locusta vigentissima.

vigentissima, *Serv. Hist. Orth.* 530.

a. Australia. Presented by the late Earl of Derby.
b. South Australia. Presented by R. Bakewell, Esq.

12. Locusta bilineata.

bilineata, *Mtrz. Ann. Soc. Agric. Lyons*, 2*me Ser.* vii. 87.
Woodlark.

13. Locusta? macrocephala.

macrocephala, *Mtrz. Ann. Soc. Agric. Lyons*, 2*me Sér.* vii. 87.
Woodlark.

14. Locusta?? pogonopoda.

pogonopoda, *Mtrz. Ann. Soc. Agric. Lyons*, 2*me Sér.* vii. 87.
Woodlark.

15. Locusta marginifera.

Fœm. *Testacea; vertex macula nigricante bilobata, corniculo inter antennas conico porrecto sulcato apice nigro, fronte subobliqua, labro albido-testaceo; prothorax transverse bisulcatus, lateribus fere rectis, margine postico subrotundato; oviductus viridis, perparum arcuatus, corpore paullo longior; femora postica uniseriatim spinulosa; tibiæ quatuor anteriores biseriatim sexspinosa; tibiæ posticæ quadriseriatim spinulosæ; alæ anticæ virides linea costali linea discoidali lineaque postica albidis; alæ posticæ viridi venosæ.*

Female. Testaceous, smooth, shining. Head as broad as the prothorax, with a large bilobed blackish spot on the vertex, and with a conical porrect, furrowed, black-tipped protuberance between the antennæ; front slightly oblique; labrum whitish testaceous. Eyes fawn-colour, nearly round, rather prominent. Maxillary palpi green; third and fourth joints of equal length; fifth subclavate, much longer than the fourth. Antennæ piceous, green at the base, full twice the length of the body. Prothorax with two slightly curved transverse furrows; sides nearly straight; hind border slightly rounded. Oviduct green, very slightly curved upward, a little longer than the body. Legs partly green; femora with a single row of some very minute spines; four anterior tibiæ with six long spines on each side; hind tibiæ with four rows of short slender spines. Wings rather short. Fore wings grass-green, narrow, a little longer than the hind wings, with a whitish line in the disk, with a whitish costal line, and with a whitish line along the interior border. Hind wings pellucid; veins pale green. Length of the body 13 lines; expansion of the fore wings 28 lines.

a. Africa. From Mr. Vigors' collection.

16 Locusta repanda.

Fœm. *Viridis, testaceo varia; caput corniculo inter antennas porrecto trilobato, fronte subobliqua apicem versus rufescente; prothorax transverse bisulcatus, lateribus valde rotundatis, margine postico subrotundato; vagina nigra, arcuata, basi viridis, apice rufescens, abdomine brevior; pedes breviusculi, femoribus quatuor anterioribus uniseriatim spinosis, femoribus posticis tibiisque quatuor anterioribus biseriatim spinulosis, tibiis posticis quadriseriatim spinulosis; alæ posticæ diaphanæ, viridi venosæ.*

Female. Grass-green, partly testaceous. Head almost as broad as the prothorax, with a porrect three-lobed protuberance between the antennæ; front slightly oblique, reddish towards the face; clypeus deep green. Eyes fawn-colour, very prominent. Fourth joint of the maxillary palpi shorter than the third; fifth much longer than the third. Prothorax with two transverse furrows, the hinder one curved towards the fore one on each side; sides much rounded; hind border slightly rounded. Oviduct black, curved upward, green at the base, reddish at the tip, rather shorter than the abdomen. Legs rather short; four anterior femora with a single row of four spines; hind femora with two rows of minute spines; fore tibiæ with six minute spines on each side; middle tibiæ with seven; hind tibiæ with four rows of minute spines; spines with black tips. Hind wings ample, pellucid; veins green. Length of the body 14 lines; of the wings 56 lines.

a. ——— ?

17. LOCUSTA DECTICOIDES.

Mas et fœm. *Testacea, fulvo varia; caput cornu antico brevi-conico porrecto, nonnunquam albido quadrilineatum; prothorax carinis lateralibus bene determinatis, lateribus valde rotundatis nonnunquam albidis; pectus albo sexstrigatum; abdominis latera fusco strigata; oviductus fere rectus, corpore paullo longior; femora postica biseriatim spinulosa; tibiæ quatuor anteriores supra unispinosæ aut bispinosæ; alæ anticæ cinereæ, corpore multo longiores, vittis duabus e maculis subquadratis fuscis vittaque intermedia cervina.*

Male and female. Testaceous, here and there more or less tawny. Head with a short porrect conical protuberance in front, not extending beyond the first joint of the antennæ; front oblique; two whitish sometimes obsolete lines extending from the eyes to the hind border and two others in some cases apparent between the eyes and the face. Eyes piceous, round, prominent. Maxillary palpi slender; fourth joint as long as the third; fifth subclavate, darker at the tip, longer than the fourth. Third joint of the labial palpi clavate, black at the tip. Prothorax with two transverse furrows and with distinct lateral keels; sides much rounded, sometimes whitish in the male; hind border straight, slightly elevated. Three oblique white streaks on each side of the pectus. Abdomen with a row of oblique brown streaks on each side. Oviduct almost straight, a little longer than the body; sheath broader at the base. Legs rather long and slender; hind femora with a row of several minute spines on each side; four anterior tibiæ with five rather long spines on each side and with one or two above; hind tibiæ with four rows of minute spines. Fore wings cinereous, much longer than the body, a little longer than the hind wings, with a fawn-coloured stripe between the externo-median vein and the interno-median vein; a row of subquadrate brown spots on each side of the stripe; veins fawn-colour or whitish. Hind wings pale cinereous; veins black; transverse sectors blackish-bordered. *Var. β.*—Prothorax with two more or less distinct whitish testaceous stripes which are bordered with blackish and are undulating on the inner side; a little brown streak on each side in the deflexed part. Length of the body 12—15 lines; expansion of the fore wings 36—42 lines.

a—c. Australia. Presented by the Haslar Hospital.
d—f. Swan River. Presented by Sir J. Richardson.

Sect. n.

Mas. Corpus longum, sat gracile. Caput prothorace vix angustius, cornu antico parvo porrecto sulcato; frons perparum obliqua. Oculi fere rotundi, valde globosi. Palporum articulus 3us 4o paullo longior; 5us 4o longior. Antennæ graciles, corpore longiores. Prothorax postice productus, sulcis tribus transversis, 1o subarcuato, 2o angulato, margine postico rotundato vix angulato. Sternum sexspinosum. Pedes longiusculi, sat robusti; femora biseriatim spinulosa; tibiæ quatuor anteriores biseriatim spinosæ; tibiæ posticæ quadriseriatim spinulosæ. Alæ corpore, multo longiores. Alæ anticæ confertissime reticulatæ, tympano basali magno.

Male. Body long, rather slender. Head and prothorax smooth, not shining. Head rounded above, nearly as broad as the prothorax, with a little slender furrowed horizontal horn between the eyes; front very slightly oblique; clypeus and labrum shining. Eyes very prominent, nearly round. Third joint of the maxillary palpi a little longer than the fourth; fifth very slightly thicker towards the tip, somewhat longer than the third. Third joint of the labial palpi clavate, truncated at the tip, longer than the second. Antennæ slender, longer than the body. Prothorax with three slight transverse furrows, the first slightly curved, the middle one angular; hind part elongated, narrower; hind border rounded, hardly angular in the middle. Sternum with two stout and rather long spines in each division. Legs rather long and stout; four anterior femora with two rows of minute spines beneath, from six to eight spines in each row; hind femora with two rows of more numerous minute spines; four anterior tibiæ with two rows of from eight to ten long stout spines on each side; hind tibiæ with four rows of numerous minute spines. Wings much longer than the body. Fore wings very thickly reticulated, with a large tympanum at the base.

The structure of the hind part of the prothorax distinguishes this section from the typical form of *Locusta*.

18. Locusta bicolor.

Mas. *Pallide lutea; antennæ fuscæ, basi lutescentes; prothorax postice viridis; sternum femora basi et coxæ albida; alæ anticæ virides, tympano diaphano; alæ posticæ diaphanæ, viridi venosæ.*

Male. Pale luteous. Eyes piceous. Antennæ brown, pale luteous at the base. Hind part of the prothorax green. Sternum whitish. Spines of the legs with black tips. Femora towards the base and coxæ whitish. Fore wings green; tympanum pellucid; veins green. Length of the body 24 lines; expansion of the wings 64 lines.

a. ——— ?

Genus 67. NICSARA.

Fœm. Corpus gracile. Caput prothorace paullo angustius, cornu antico parvo porrecto carinato obtuso; frons subobliqua, parce punctata. Oculi magni, fere rotundi, valde globosi. Palporum articulus 3us 4o paullo longior; 5us 3o valde longior. Antennæ graciles, corpore multo longiores; articulus 1us longus, validus, intus apicem versus dilatatus. Prothorax transverse trisulcatus, lateribus fere rectis, margine postico subrotundato.

Abdomen fusiforme. Oviductus vix arcuatus, abdomine longior. Pedes sat graciles; femora quatuor anteriora trispinulosa; femora postica biseriatim spinulosa; tibiæ quatuor anteriores biseriatim spinosæ; tibiæ posticæ quadriseriatim spinulosæ. Alæ anticæ conferte reticulatæ. Alæ posticæ paullo breviores.

Female. Body slender, convex, smooth, shining. Head a little narrower than the prothorax, with a little porrect obtuse keeled horn between the eyes; front slightly oblique, thinly punctured. Eyes large, nearly round, very prominent. Third joint of the maxillary palpi a little longer than the fourth; fifth subclavate, very much longer than the third. Antennæ slender, much longer than the body; first joint long, stout, dilated on the inner side towards the tip. Prothorax with three slight transverse furrows; sides nearly straight; hind border slightly rounded. Abdomen fusiform. Oviduct hardly curved, longer than the abdomen. Legs rather slender; a spine on each of the fore coxæ; four anterior femora with a single row of three minute spines; hind femora with two rows of several minute spines; four anterior tibiæ with from five to six rather small spines on each side; hind tibiæ with four rows of numerous minute spines. Wings longer than the body. Fore wings thickly reticulated, a little longer than the hind wings.

The short spines of the fore legs distinguish this genus from *Locusta*.

1. Nicsara trigonalis.

Fœm. *Testaceu; caput nigro sexlineatum, fronte nigra maculam strigasque duas testaceas includente, labro luteo; antennæ nigræ, articulo* 1*o testaceo nigro-vittato; prothorax vittis duabus nigricantibus testaceo conspersis postice furcatis et connexis, litura intermedia fusca cruciformi; femora nigro conspersa; femora postica nigro bifasciata et univittata; tibiæ basi nigræ; tibiæ quatuor anteriores supra nigro conspersæ; alæ cinereæ; alæ anticæ fusco variæ, albido venosæ; alæ posticæ nigro venosæ.*

Female. Testaceous. Head above with six longitudinal black lines, which are united in front; front black, with a triangular testaceous spot in the disk and with a short testaceous streak on each side; labrum luteous. Eyes piceous. Antennæ black; first joint testaceous, striped with black. Prothorax with two irregular blackish stripes, which are speckled with testaceous and are forked and united hindward; an intermediate brown cruciform mark. Femora speckled with black; hind femora with a black stripe on the outer side and with two black bands, the first beyond the middle, the second apical; tibiæ black at the base; four anterior tibiæ speckled with black above. Wings cinereous. Fore wings speckled and dotted and partly clouded with brown; veins whitish. Hind wings with black veins. *Var.* β.—Triangular spot on the front of the head nearly obsolete. Length of the body 14 lines; expansion of the fore wings 44 lines.

a. Port Essington. Presented by the late Earl of Derby.
b. Australia. Presented by the Haslar Hospital.

Genus 68. MOSSULA.

Mas et fœm. Corpus gracile. Caput longiusculum, cornu parvo porrecto rotundato carinisque duabus anticis; frons obliqua. Oculi fere elliptici, valde globosi. Palporum articulus 3us 4o fere duplo longior; 5us subclavatus, 3o longior. Antennæ graciles, corpore quadruplo longiores. Prothorax postice angustior, sulcis duobus transversis, 2a arcuata, margine antico rotundato, lateribus subrotundatis, margine postico recto. Oviductus subarcuatus, abdomine paullo brevior. Pedes graciles; femora quatuor anteriora uniseriatim spinulosa; femora postica et tibiæ quatuor anteriores biseriatim spinulosa; tibiæ posticæ quadriseriatim spinulosæ. Alæ anticæ confertissime reticulatæ.

Male and female. Body slender, smooth, convex. Head elongate, with a short rounded porrect horn extending from between the eyes to between the antennæ, where it is accompanied by a keel on each side; front oblique. Eyes nearly elliptical, very prominent. Maxillary palpi pubescent; third joint nearly twice the length of the fourth; fifth subclavate, longer than the third. Antennæ slender, about four times the length of the body. Prothorax narrower hindward, with two transverse furrows; the hinder one curved, approaching the fore one on each side; fore border rounded in the middle; sides slightly rounded; hind border straight, notched on each side. Oviduct slightly curved upward, a little shorter than the abdomen. Legs slender; four anterior femora with a single row of eight minute spines on each; hind femora with two rows of numerous small spines; four anterior tibiæ with two rows of about twelve minute spines; hind tibiæ with four rows of numerous small spines. Wings extending somewhat beyond the abdomen. Fore wings very thickly and irregularly reticulated.

The much longer legs distinguish this genus from *Nicsara*.

1. Mossula vitticollis.

Mas et fœm. *Fulva; prothorax et capitis vertex nigro vittata; caput testaceum, lituris duabus punctisque quatuor nigris; antennæ piceæ, basi fulvæ; prothorax margine nigro, maculis duabus sulcisque nigricantibus; abdominis segmenta fusco marginata; alæ posticæ cinereæ.*

Male and female. Tawny. Prothorax and vertex of the head with a black stripe. Head testaceous; front with an angular black mark on each side near the antennæ, and with a black point on each side near the face, which also has two black points. Antennæ piceous, tawny towards the base. Prothorax with a black border, with a blackish spot on each side of the disk, and with blackish furrows. Hind borders of the abdominal segments brown. Wings with testaceous veins. Hind wings cinereous. Length of the body 21—24 lines; expansion of the wings 42—52 lines.

a, b. ——? From Mr. Macgillivray's collection.

Genus 69. MONCHECA.

Fœm. Corpus lineare, sat gracile. Caput cornu antico brevi-conico, subascendente; frons subobliqua. Oculi fere rotundi, valde globosi. Palporum articuli 3us et 4us æquilongi; 5us subclavatus, 4o multo longior. Antennæ longæ, graciles. Prothorax postice angustior, sulcis duobus transversis subarcuatis, lateribus fere rectis, margine postico subrotundato vix ascendente. Oviductus rectus, abdomini æquilongus. Pedes sat graciles; femora uniseriatim spinosa; tibiæ quatuor anteriores biseriatim spinosæ; tibiæ posticæ quadriseriatim spinosæ. Alæ longæ.

Female. Body linear, rather slender, smooth, shining. Head as broad as the prothorax, with a conical slightly ascending protuberance between the antennæ; front slightly oblique. Eyes nearly round, very prominent. Fourth joint of the maxillary palpi as long as the third; fifth subclavate, much longer than the fourth. Antennæ slender, much longer than the body. Prothorax with two transverse slightly curved furrows; hind part narrower; sides nearly straight; hind border slightly rounded and elevated. Oviduct straight, as long as the abdomen. Legs rather slender; femora with a single row of spines beneath, five on each of the four anterior femora, nine on each of the hind femora; four anterior tibiæ with about eight spines on each side; hind tibiæ with numerous spines in four series; lobes of the third joint of the tarsi much dilated. Wings very much longer than the body.

The spines on the fore tibiæ are more numerous and much smaller than those of *Locusta*.

1. Moncheca pretiosa.

Fœm. *Beryllina; frons fusca, gutta albida, strigis duabus fulvis obliquis punctisque quatuor pallidioribus, clypeo ochraceo; palpi fulvi; antennæ piceæ, albido quadrifasciatæ, basi fulvæ; prothorax testaceus, albido bifasciatus; oviductus nigricans; pedes fusci, tibiis posticis saturate rufis; alæ anticæ cinereæ, albido venosæ, vitta costali pallide purpurascente marginata, vitta postica viridi, vitta costali subtus coccinea; alæ posticæ diaphanæ, viridi venosæ.* Var. *β.—Abdomen testaceum, segmentis viridi marginatis.* Var. *γ.—Caput supra pallide roseum, albo lineatum; abdomen albido-testaceum; tibiæ posticæ roseæ; alæ anticæ vitta postica flavo-alba; alæ posticæ flavo-albo venosæ.*

Female. Beryl-green. Front of the head brown, with a whitish conical dot near the antennæ, with a tawny oblique streak on each side and with four anterior paler points; face and clypeus ochraceous. Eyes livid. Palpi tawny. Antennæ piceous, tawny for nearly one-third of the length from the base; four whitish bands in the piceous part. Prothorax testaceous, brown about the sutures, with two whitish bands. Oviduct blackish, pale luteous beneath, except towards the tip. Legs brown; hind tibiæ deep red; tarsi rosy red beneath; hind tarsi reddish above. Fore wings cinereous, with whitish veins; a pale yellow costal stripe, which tapers from the base to two-thirds of the length and is bordered on the hind side by a shorter purplish red stripe; a green stripe tapering from the base along

nearly half the length of the interior border; under side with a crimson costal stripe along one-third of the length from the base. Hind wings pellucid; veins green. *Var.* β.—Abdomen testaceous above; hind borders of the segments green. *Var.* γ.—Head pale rosy, with some irregular white lines; front brown, with the usual markings. Pectus testaceous. Abdomen whitish testaceous. Oviduct testaceous towards the tip, whitish beneath towards the base. Hind tibiæ rosy. Fore wings with the stripe along the interior border yellowish white. Hind wings with yellowish white veins. Length of the body 14—16 lines; expansion of the fore wings 47—54 lines.

a. Honduras. From Mr. Dyson's collection.
b, *c*. Oajaca, Mexico. From M. Sallé's collection.

Genus 70. SAGA.

Locusta, *Fabr. &c.*—Gryllus, *De Villers, &c.*—Saga, *Charp. Hor. Ent.* 95. *Serv. Rev. Hist. Orth.* 538. *Brullé, Hist. Nat. Ins.* ix. 158. *Burm. Handb. Ent.* ii. 711. *Fisch. Orth. Eur.* 241—Tettigopsis, *Fisch. de Waldh.*

1. Saga serrata.

Locusta onos, *Stoll, Saut. et Grill.* pl. 11, f. 42, 43—Gryllus giganteus, *De Vill. Linn. Ent.* i. 451, pl. 3, f. 7—Locusta serrata, *Fabr. Ent. Syst.* ii. 43. *Latr. Hist. Nat.* xii. 134—Saga serrata, *Charp. Hor. Ent.* 95. *Brullé, Hist. Nat.* ix. 139. pl. 16. *Blanch. Hist. Nat. Ins.* iii. 29. *Burm. Handb. Ent.* ii. 711. *Fisch. de W. Orth. Ross.* 183, pl. 5. *Fisch. Orth. Eur.* 242, pl. 14, f. 9—Tettigopsis serrata, *Fisch. de W. Bull. Soc. Nat. Mosc.* vi. 363; *A. S. E. F.* ii. 31n—n6dipes *Fisch. de W.*

a. South France. Presented by Miss Charlotte Gray.
b, *c*. ———?
d. Odessa. Presented by Dr. Dowler.
e. Athens.
f. South Europe. Presented by Mrs. Mauger.

2. Saga Natoliæ.

Natoliæ, *Serv. Hist. Orth.* 541—Gryllus Pedo, *Pallas, Voy. Russ.* viii. 164—Saga Synophrys, *Charp. Germ. Zeitsch.* iii. 319—Locusta (Saga) Pedo, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 209.

Smyrna.

3. Saga vittata.

Saga vittata, *Fisch. de Waldh. Orth. Ross.* 184, 412, pl. 6. *Fisch. Orth. Eur.* 243—Tettigopsis vittata, *Fisch. de W. Notice Tettig.* 16.

South Russia.

4. Saga synophrys.

synophrys, *Charp. Germ. Zeitsch. Ent.* iii. 319. *Fisch. Orth. Eur.* 244, pl. 14, f. 8—gigantea, *Frivaldsky, H.-Sch. Nomencl.* 15, 27.

Turkey.

5. Saga ephippigera.

ephippigera, *Fisch. de W. Orth. Ross.* 185, pl. 30.

Caucasus Region.

6. Saga ornata.

———, *Savigny, Descr. Egypte Orth.* pl. 4, f. 11—Saga ornata, *Burm. Handb. Ent.* ii. 711.

Egypt.

7. Saga Syriaca.

Syriaca, *Lucas, A. S. E. F.* 1864. *Bull.* v.

Aleppo.

8. Saga minuta.

Locusta (Saga) minuta, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 209.

Cape.

9. Saga macrocephala.

macrocephala, *Schaum, Monats. Berl. Acad.* 1853, 778.

Mozambique.

10. Saga elegans.

elegans, *Blanch. Hist. Nat. Ins.* iii. 29.

Cape.

11. Saga azurea.

Gryllus (Tettigonia) azureus, *Stoll. Saut. et Gryll.* pl. 13, f. 53—Gryllus (Tettigonia) melanopterus? *Linn. Syst. Nat.* 430—Saga azurea, *Serv. Hist. Orth.* 540. *Burm. Handb. Ent.* ii. 711—Locusta (Saga) melanoptera, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 209. *Mus. Lud. Ulr.* 134.

Var.? *Male.*—Pale yellowish, slender, linear. Head very finely punctured, with an obtuse very short horn between the antennæ; fore part much retracted. Eyes ferruginous, prominent. Antennæ piceous, pale yellow towards the base, about as long as the body. Prothorax much longer than broad, with two angular transverse furrows, and with a short longitudinal furrow; fore border green. Abdomen partly green. Legs long, slender; fore femora with seven spines on the outer side and with six on the inner side; middle femora with seven spines on each side; hind femora with twelve or fewer minute spines on each side; fore tibiæ with six spines on each side; middle tibiæ with six or seven spines on each side; hind tibiæ with numerous minute spines in three rows. Wings less than

half the length of the body. Fore wings green towards the tips. Hind wings blackish cinereous, purple along the costa. *Female.*—Oviduct slightly curved, nearly as long as the abdomen. Length of the body 23—27 lines.

a. Cape. From Mr. Children's collection.
b, c. South Africa. Presented by Sir A. Smith.
d—f. From M. Gueinzius' collection.
g. Sierra Leone. Presented by the Rev. D. F. Morgan.

12. Saga indica.

Locusta indica, *Herbst, Arch. Fuessly*, pl. 53, f. 2—Saga indica, *Brullé, Hist. Nat. Ins.* ix. 158. *Burm. Handb. Ent.* ii. 711.

Hindostan.

13. Saga denticulata.

denticulata, *White, Grey's Journ. Exp.* ii. 469.

a—c. King George's Sound. Presented by Sir G. Grey.
d. Australia. Presented by the late Earl of Derby.
e. ———?

Var. Male.—Luteous, slender, linear. Head and prothorax partly tinged with green. Head very finely punctured, with a short porrect obtuse spine between the antennæ. Mandibles with black tips. Third and fourth joints of the maxillary palpi about equal in length; fifth much longer. Antennæ piceous towards the tips, about as long as the body. Prothorax punctured, with a black stripe. Abdomen with a piceous macular stripe. Legs long, slightly tinged with green; spines black, or with black tips; four anterior femora with eight spines on the outer side and with six on the inner side; hind femora with twelve spines on the outer side and with nine on the inner side; four anterior tibiæ with six spines on each side; hind tibiæ with numerous spines in four rows. Wings less than half the length of the abdomen. Length of the body 22 lines.

f. Australia. Presented by the Haslar Hospital.

14. Saga lutea.

Fœm. *Lutea; caput subtilissime punctatum, cornu antico brevi porrecto obtuso; prothorax longitudinaliter unisulcatus, transverse quadrisulcatus; abdomen fusiforme; oviductus perparum arcuatus, corpori æquilongus; pedes spinosi.*

Female. Luteous, slender. Head very finely punctured; with a short porrect obtuse spine between the antennæ; fore part much retracted. Antennæ rather longer than the body. Prothorax with four slight transverse furrows and with one short longitudinal furrow; first transverse furrow curved near the fore border; second and fourth straight; third angular. Abdomen fusiform. Oviduct very slightly curved upward, as long as the body; tip black. Legs long; spines black or with black tips; four anterior femora with eight spines on the outer side and with fewer on the inner side; hind femora with fourteen spines on each side successively increasing in size to the apical one; four anterior tibiæ with

six spines on each side; hind tibiæ with numerous spines in four rows. Length of the body 18 lines.

The oviduct is longer than that of *S. denticulata*.

a. Swan River. From Mr. Cuming's collection.

15. Saga parvula.

Mas. *Testaceo-viridis, punctata; caput cornu brevi porrecto lato lineari apice rotundato, lituris quatuor fronteque nigris; prothorax strigis duabus nigris longitudinalibus arcuatis valde interruptis, dorso plano, lateribus margineque postico subrotundatis; sternum nigrum, testaceo-viridi marginatum; femora quatuor posteriora fusco conspersa; femora intermedia trispinulosa; femora postica biseriatim spinulosa; tibiæ quatuor anteriores biseriatim spinosæ; tibiæ posticæ quadriseriatim spinulosæ; alæ anticæ fusco bifasciatæ, abdomen non superantes.*

Male. Testaceous-green. Head and prothorax thickly punctured. Head with two small black marks on each side, one by the eye, the other on the hind border; a broad linear porrect protuberance, much rounded in front and extending a little beyond the first joint of the antennæ; front black, long, very oblique. Mandibles black. Eyes very prominent. Fourth joint of the maxillary palpi a little shorter than the third; fifth much longer than the third. Antennæ about twice the length of the body. Prothorax with a curved much interrupted black streak on each side; the flat dorsal surface dilated hindward; sides and hind border slightly rounded, the latter slightly notched on each side. Sternum black, bordered with testaceous-green. Abdomen with two bidentate apical hooks; ventral segments piceous. Four posterior femora speckled with brown; middle femora with three minute spines beneath; hind femora with two rows of minute spines beneath; four anterior tibiæ with five small black-tipped spines on each side beneath; hind tibiæ with four rows of minute spines. Fore wings not extending beyond the abdomen, with two broad brown bands; first band basal, interrupted; second subapical, entire. Length of the body 9½ lines.

a. Oahu, Sandwich Islands. Presented by Capt. Beechey.

Sect. n.

Fœm. Corpus gracile. Caput conicum, prothorace paullo latius, cornu antico parvo conico porrecto; frons longa, valde obliqua. Oculi rotundi, valde globosi. Palporum articulus 3us 4o longior, 5o brevior. Antennæ graciles, corpore longiores. Prothorax apud medium coarctatus, margine postico rotundato. Oviductus subarcuatus, abdomine paullo longior. Pedes longi, femoribus tibiisque quatuor anterioribus biseriatim sexspinosis, femoribus posticis biseriatim spinosis, tibiis posticis quadriseriatim spinosis. Alæ anticæ angustæ. Alæ posticæ longiores.

Female. Body slender. Head conical, a little broader than the prothorax, with a little conical porrect protuberance between the antennæ; front long, very oblique. Eyes round, very prominent. Third joint of the maxillary palpi longer than the fourth, shorter than the fifth. Antennæ slender, longer than the body. Prothorax saddle-shaped, slightly contracted

in the middle; hind border rounded, notched on each side. Oviduct slightly curved upward, a little longer than the abdomen. Legs long; four anterior femora and tibiæ with six spines on each side beneath; hind femora with two rows of more numerous spines; hind tibiæ with four rows of spines. Fore wings narrow, as long as the body. Hind wings broad, rather longer than the fore wings.

16. Saga maculosa.

Fœm. *Viridis; prothorax vittis duabus fuscis indeterminatis postice nigris et dilatatis; abdominis discus ex parte ochraceus; alæ anticæ vitta e strigis albis, vitta exteriore cinerea rufescente venosa; alæ posticæ purpureo-fuscæ, basi diaphanæ viridi venosæ, vitta costali pallide viridi, fasciis plurimis diaphanis macularibus.*

Female. Grass-green. Eyes testaceous. Prothorax with two indistinct brown stripes, which are dilated and black towards the hind border. Abdomen partly ochraceous in the disk. Oviduct black above towards the tip. Fore wings with a row of elongated white spots along the mediastinal vein; hind part brown, with green or whitish veins; a cinereous stripe with reddish veins in the exterior part of the disk. Hind wings purplish brown, pellucid with pale green veins at the base, with a pale green costal stripe and with many bands of irregular pellucid spots; hind border pellucid. Length of the body 24 lines; expansion of the fore wings 53 lines.

a. South Africa. Presented by Sir A. Smith.

Genus 71. AGRÆCIA.

Agræcia, *Serv. Rev.* 56; *Hist. Orth.* 525. *Burm. Handb. Ent.* ii. 707.

1. Agræcia punctata.

Locusta punctata, *Enc. Meth.* x. 342—Agræcia punctata, *Serv. Rev.* 56; *Hist. Orth.* 526, pl, 11, f. 3. *Burm. Handb. Ent.* ii. 707.

Brazil.

2. Agræcia lateralis.

lateralis, *Erichs. Arch.* 1842, 249.

Tasmania.

The following species form one group which is here described.

Group 2.

Fœm. Corpus crassum, convexum, fere cylindricum, parce punctatum. Caput maximum, antice scabrum, thorace paullo latius, cornu frontali brevi acuto armatum. Oculi parvi, subpetiolati. Mandibulæ magnæ, bidentatæ aut tridentatæ. Palpi maxillares longi; articulus 4us subclavatus, 2o valde longior. Prothorax non transversus, sulcis duobus transversis unoque tenui longitudinali. Cerci breves, lati. Oviductus latus, valde arcuatus, abdomine paullo brevior. Pedes crassi, spinosi; tarsorum articulus 3us basi bilaminatus. Alæ anticæ corpore paullo longiores, inordinatim et densissime reticulatæ.

Salomona, *Blanch. Voy. Pole, Sud.* iv. 361.

Female. Body thick, convex, nearly cylindrical. Head and prothorax thinly punctured. Head very large, a little broader than the prothorax; a short acute horn between the sockets of the antennæ; front and face scabrous. Eyes small, close to the sockets of the antennæ, extremely prominent. Mandibles large, broad, with two or three teeth; tips acute. Maxillary palpi about twice the length of the labial palpi; third joint shorter than the second; fourth subclavate, very much longer than the third. Antennæ much more than twice the length of the body. Prothorax with parallel sides, somewhat longer than broad, with a slight longitudinal furrow and with two transverse furrows, of which the second is more distinct than the first. Prosternum with two spines. Cerci short, broad, about one-sixth of the length of the oviduct. Oviduct broad, sabre-shaped, much curved upward, a little shorter than the abdomen. Legs thick, moderarely long; femora and tibiæ with many rather small spines; tarsi three-jointed; third joint with two foliaceous appendages at the base. Fore wings as long as the body, a little longer than the hind wings, irregularly and very thickly reticulated; transverse sectors extremely numerous; scapular vein forked beyond half its length, its two branches also forked; the next vein with one fork. Hind wings very broad, wholly reticulated; transverse sectors numerous, mostly regular.

3. Agræcia megacephala.

Locusta megacephala, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 209, pl. 19, f. 1.

New Guinea. Aru.

a. Boroo. From Mr. Wallace's collection.

4. Agræcia laticeps.

Locusta laticeps, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 210—megacephala, *var.*?

Amboina.

5. Agræcia solida.

Mas et fœm. *Testacea, crassa, fere cylindrica, parce punctata; caput unispinosum, prothorace vix latius, fronte picea scabra, facie nigra apicem versus pallide testacea; palpi pallide testacei; prothorax transverse bisulcatus, margine postico subproducto valde rotundato; pectus nigro trifasciatum, prosterno bispinoso; abdomen apice bidentatum et quadrispinosum; pedes biseriatim spinosi, femoribus posticis uniseriatim spinosis, tibiis posticis quadriseriatim spinosis; alæ anticæ confertissime reticulatæ, costa valde rotundata; alæ posticæ diaphanæ, venis pallide testaceis.* Fœm.—*Oviductus piceus, arcuatus, abdomine multo brevior.*

Male. Testaceous, stout, nearly cylindrical. Head and prothorax thinly punctured. Head hardly broader than the prothorax; an acute spine between the eyes; front scabrous, piceous; face and labrum black; face pale testaceous towards the tip. Eyes very prominent. Palpi pale testaceous; fourth joint of the maxillary palpi much shorter than the third; fifth subclavate, truncate, much longer than the third. Antennæ about

twice the length of the body. Prothorax with two slight curved transverse furrows; hind border slightly elongated, much rounded. Prosternum, mesosternum and metasternum with a black curved band on each. Prosternum with two spines. Apical appendages of the abdomen consisting of two short obtuse teeth above, of two slender obtuse slightly curved spines beneath, and with two intermediate thick obtuse slightly curved spines. Legs stout; fore coxæ with one spine; femora and tibiæ with small black-tipped spines; fore femora with five spines on the outer side and with six on the inner side; middle femora with six spines on the outer side and with two on the inner side; hind femora with a single row of ten spines; fore tibiæ with six spines on each side; middle tibiæ with ten spines on the outer side and with fewer on the inner side; hind tibiæ with four rows of spines, two with twelve or thirteen spines each, and two with six or seven. Wings not extending beyond the abdomen. Fore wings irregularly and very thickly reticulated; costa much rounded, except towards the tip. Hind wings pellucid; veins pale testaceous. *Female.*—Oviduct piceous, curved, much shorter than the abdomen. Length of the body 27—30 lines; of the wings 42—51 lines.

The unspotted fore wings distinguish it from *A. megacephala.*

a—*c*. Sunday Island, Australia. From Mr. Macgillivray's collection.
d. Sundaw Island, New Zealand. Presented by J. B. Jukes, Esq.

6 Agræcia marmorata.

Fœm. [*Testacea, longiuscula, dense punctata; caput longiusculum, apud antennas subcornutum et nigro notatum, antice obliquum et aspere punctatum, facie nigra; prothorax transverse sulcatus, margine antico rotundato, lateribus fere rectis, margine postico subproducto; oviductus valde arcuatus, apice niger, abdomine vix brevior; pedes robusti, femoribus nigro strigatis spinosis; tibiis quatuor anterioribus biseriatim quinquespinosis, tibiis posticis quadriseriatim novemspinosis; alæ anticæ coriaceæ; alæ posticæ cinereæ.*

Acanthodis marmorata, *Blanch. Voy. Pole Sud.* pl. 2, f. 5, 6—Salomona marmorata, *Blanch. Voy. Pole Sud.* 362.

Female. Testaceous, convex, shining, elongated, thickly punctured. Head hardly broader than the prothorax, rather long above, flat and abruptly retracted in front, with a very short horn between the antennæ; a small black mark near the base of each of the antennæ, which are also marked with black at the base and are more than twice the length of the body; front roughly punctured; face black. Prothorax hardly broader than long, with a furrow across the middle; fore border rounded; sides nearly straight; hind border slightly elongated in the middle. Oviduct much compressed, much curved upward, black towards the tip, almost as long as the abdomen. Legs stout, moderately long; femora with a black streak on the outer side; four anterior femora with a variable number of minute spines on each side; hind femora with a single row of seven small spines; four anterior tibiæ with five spines on each side; hind tibiæ with nine minute spines on each of the four rows; spines with black tips; tarsi broad, except the fourth joint, which is much longer than any of the others. Wings of equal length; veins tawny. Fore wings coriaceous; transverse

sectors irregular. Hind wings cinereous. Length of the body 24 lines; of the wings 40 lines.

The smaller size and slender structure distinguish it from *A. megacephala*.

Solomon's Isles.

a. New Hebrides. From Mr. Cuming's collection.
b. ——— ?

7. Agræcia rugifrons.

Mas et fœm. *Testacea; caput unispinosum, prothorace latius, vertice punctato lateribus sulcatis, lineis duabus lateralibus transversis nigricantibus, fronte rugosa nonnunquam nigricante; palpi pallide testacei; prothorax aspere punctatus, transverse bisulcatus, margine subreflexo exparte nigro, margine postico producto rotundato; abdomen apice cornubus duobus crassis truncatis bidentatis spinisque duabus inferioribus; pedes biseriatim spinosi, femoribus posticis uniseriatim spinosis, tibiis posticis quadriseriatim spinosis; alæ anticæ densissime reticulatæ; alæ posticæ cinereæ.* Fœm.—*Oviductus fulvus, arcuatus, abdomine brevior.*

Male. Testaceous. Head broader than the prothorax; vertex punctured, obliquely furrowed on each side; an acute spine between the eyes; front with five irregular longitudinal ridges and on each side with transverse ridges; a blackish line on each side extending from the eye to the mouth between the vertex and the front; labrum black at the base. Eyes very prominent. Mandibles black towards the tips. Palpi pale testaceous; fourth joint almost as long as the third; fifth clavate, truncated, nearly twice the length of the fourth. Antennæ sometimes nearly thrice the length of the body. Prothorax roughly punctured, with a slightly reflexed and partly black border and with two curved transverse furrows; hind part elongated and rounded. Prosternum with two spines. Abdomen at the tip with two large truncate bidentate appendages and with two inferior spines. Legs stout; fore coxæ with one spine; spines of the femora and tibiæ minute, with black tips or wholly black; fore femora with seven black spines on each side; middle femora with six spines on the outer side and with two on the inner side; hind femora with a single row of ten spines, which successively increase in size; fore tibiæ with six spines on each side; middle tibiæ with from ten to twelve spines on the outer side and with much fewer on the inner side; hind tibiæ with one row of four spines and with three rows of spines, each from ten to twelve in number. Wings extending a little beyond the abdomen. Fore wings irregularly and very thickly reticulated. Hind wings cinereous. *Var. β*.—Front and face blackish; labrum reddish except at the base. Middle femora with seven spines on the outer side and with three on the inner side; hind femora with a row of eleven spines. *Female*.—Oviduct tawny, curved, shorter than the abdomen. Length of the body 26—27 lines; of the wings 45—47 lines.

The wrinkled front distinguishes it from *A. megacephala*, *A. solida* and *A. facialis*.

a—*c*. Fiji Isles. From Mr. Macgillivray's collection.
d, *e*. Fiji Isles. From Mr. Stevens' collection.

8. Agræcia vittifrons.

Fœm. *Fulva; caput scabrum, longiusculum, inter antennas spina armatum, antice obliquum et nigro bivittatum; palporum articulus 5us 4o duplo longior; antennæ piceæ, basi fulvæ; prothorax longiusculus, transverse bisulcatus, margine postico vix producto; oviductus piceus, arcuatus, abdomini æquilongus; pedes robusti, femoribus biseriatim spinosis, tibiis quatuor anterioribus biseriatim quinquespinosis, tibiis posticis quadriseriatim novem-spinosis; alæ anticæ coriacæ, nigro sparse punctatæ; alæ posticæ obscure cinereæ, paullo breviores.*

Female. Tawny, stout. Head and prothorax scabrous. Head rather long, with a short porrect spine between the antennæ; fore part flat, abruptly retracted, with two short black stripes which extend to the mandibles; front more roughly scabrous than the upper surface. Palpi testaceous; fifth joint of the maxillary very slightly clavate, twice the length of the fourth. Antennæ piceous, tawny at the base, about twice the length of the body. Prothorax slightly elongate, a little narrower in front, with two curved transverse furrows; sides nearly straight; hind border hardly elongated. Oviduct piceous, broad, curved, much compressed, as long as the abdomen. Legs stout, moderately long; femora with six or fewer spines on each side; four anterior tibiæ with five spines on each side; hind tibiæ with nine spines in each of the four rows; spines minute, with black tips; tarsi broad; fourth joint slender. Fore wings coriaceous, a little longer than the hind wings; transverse sectors irregular; a few black points in the disk. Hind wings dark cinereous; veins brown. Length of the body 15 lines; of the wings 34 lines.

The darker hind wings distinguish it from *A. facialis*.

a. Philippine Isles. From Mr. Cuming's collection.

9. Agræcia sparsa.

Mas. *Fulva, convexa, longiuscula, scabra; caput spina brevi oblique ascendente armatum, fronte obscuriore, facie nigra, labro luteo; abdomen testaceum; alæ anticæ nigro guttatæ; alæ posticæ sordide cinereæ.*

Male. Tawny, nearly cylindrical. Head and prothorax scabrous. Head as broad as the prothorax, with an obliquely ascending spine between the antennæ; fore part retracted; front dark tawny; face black; labrum luteous. Eyes testaceous, very prominent. Antennæ piceous, tawny at the base. Prothorax elongate, with two transverse curved furrows. Abdomen testaceous. Fore wings a little longer than the hind wings, with several black dots of various size. Hind wings dingy cinereous; veins testaceous. Length of the body 20 lines; of the wings 36 lines.

The number of spines on the legs of the specimen described cannot be ascertained. It has most affinity to *A. vittifrons*, from which it differs in the arrangement of the marks on the fore wings.

Sarawak. In Mr. Saunders' collection.

10. AGRÆCIA TETRA.

Fœm. *Sordide fulva, robusta, scabra; caput longiusculum, prothorace paullo latius, inter antennas cornutum, antice retractum, facie testacea, labro nigricante; palporum articulus 5us subclavatus, 4o multo longior; antennæ nigræ, basi testaceo annulatæ; prothorax longiusculus, sulco transverse arcuato, lateribus fere rectis, margine postico subproducto; oviductus arcuatus, apice niger, abdomine brevior; pedes robusti, femoribus quatuor anterioribus biseriatim sexspinosis, femoribus uniseriatim novemspinosis, tibiis anticis biseriatim sexspinosis, tibiis intermediis biseriatim octospinosis, tibiis posticis quadriseriatim spinosis; alæ anticæ coriaceæ; alæ posticæ obscure cinereæ.*

Female. Dingy tawny, stout, scabrous. Head a little broader than the prothorax, rather long above, with a short porrect spine between the antennæ; fore part flat, abruptly retracted; face testaceous; labrum and mandibles blackish. Fifth joint of the maxillary palpi subclavate, much longer than the fourth; third joint of the labial palpi clavate, piceous towards the tip. Antennæ black, much longer than the body, with a few testaceous rings near the base. Prothorax hardly transverse, slightly narrower in front, with a curved transverse furrow at one-third of the length from the hind border, which is somewhat elongated in the middle; sides nearly straight. Oviduct curved, much compressed, black towards the tip, rather shorter than the abdomen. Legs stout, moderately long; four anterior femora with six teeth on each side; hind femora with a single row of nine spines on the outer side; fore tibiæ with six spines on each side; middle tibiæ with eight spines on each side; hind tibiæ testaceous, with twelve spines on each side and with three beneath; spines minute, with black tips; tarsi piceous, broad, except the fourth joint. Wings of equal length. Fore wings coriaceous, irregularly reticulated. Hind wings dark cinereous; veins brown; transverse sectors numerous, regular. Length of the body 24 lines; of the wings 42 lines.

a. Philippine Isles. From Mr. Cuming's collection.

11. AGRÆCIA PHÆOPSIS.

Fœm. *Testacea, gracilis, punctata; caput spina inter antennas subascendente, fronte picea scabra; palporum articulus 5us 3o longior, 4o multo longior; prothorax transverse arcuatim bisulcatus; oviductus fulvus, arcuatus, brevis; femora quatuor anteriora biseriatim spinosa; femora postica uniseriatim spinosa; tibiæ anticæ biseriatim spinosæ; tibiæ quatuor posteriores basi nigro unimaculatæ; tibiæ intermediæ uniseriatim spinosæ; tibiæ posticæ quadriseriatim spinosæ.*

Female. Testaceous, slender, cylindrical. Head and prothorax punctured. Head with a short slightly ascending spine between the antennæ; fore part piceous, scabrous, much retracted; mandibles blackish. Eyes very prominent. Palpi very pale testaceous; fifth joint of the maxillary palpi subclavate, longer than the third, much longer than the fourth. Prothorax with a curved transverse furrow at a little behind the

middle and with another very near the fore border. Oviduct tawny, curved upward, about one-fourth of the length of the abdomen. Legs stout; spines minute, with black tips; fore femora with five spines on each side; middle femora with five spines on the outer side and with two on the inner side; hind femora with a single row of seven spines; fore tibiæ with six spines on the outer side and with four on the inner side, these spines larger than those of the femora; four posterior tibiæ with a black spot near the base; middle tibiæ with a single row of nine spines; hind tibiæ with numerous spines in the four rows. Wings rudimentary. Length of the body 19 lines.

The specimen described seems to be not fully developed.

a. Australia. From Mr. Macgillivray's collection.

Genus 72. MONTESA.

Fœm. Corpus sat gracile. Caput prothorace non angustius, cornu antico brevi lato lobato subascendente; latera rugulosa; frons subobliqua. Oculi rotundi, valde globosi. Palporum articulus 4us 3o paullo brevior; 5us 3o valde longior. Antennæ longæ, graciles. Prothorax rugulosus, fere planus, transverse unisulcatus, abdomine multo angustior, lateribus valde rotundatis, margine postico subrotundato. Oviductus rectus, corpore longior. Pedes sat graciles; femora uniseriatim spinulosa; tibiæ quatuor anteriores biseriatim spinosæ; tibiæ posticæ quadriseriatim spinulosæ. Alæ anticæ corpore longiores.

Female. Body rather slender. Head as broad as the prothorax, rugulose on each side, with a broad trilobed slightly ascending protuberance between the antennæ; front slightly oblique, nearly smooth; labrum short. Mandibles large. Eyes round, very prominent. Fourth joint of the maxillary palpi a little shorter than the third; fifth subclavate, very much longer than the third. Antennæ slender, about twice the length of the body. Prothorax rugulose, nearly flat above, with one transverse furrow; sides much rounded; hind border slightly rounded. Abdomen much narrower than the prothorax. Oviduct straight, somewhat longer than the body. Legs rather slender; fore femora with a single row of four spines; middle femora with a single row of eight spines; hind femora with a single row of twelve spines; fore tibiæ with two rows of six spines; middle tibiæ with two rows of eight spines; hind tibiæ with four rows of spines. Fore wings narrow, very thickly reticulated, a little longer than the hind wings.

1. Montesa nigridens.

Fœm. *Viridis; caput antice nitens, labro albido, mandibulis nigris; abdomen et vagina testacea, hæc apicem versus viridis; alæ posticæ diaphanæ, viridi venosæ.*

Female.—Grass-green. Head shining in front; labrum whitish. Mandibles black. Eyes red. Abdomen and oviduct testaceous, the latter green towards the tip. Spines of the legs with black tips. Hind wings pellucid; veins green. Length of the body 16 lines; expansion of the fore wings 38 lines.

a. Tapayos. From Mr. Bates' collection.

Male? Labrum much longer. Length of the body 14½ lines; expansion of the fore wings 30 lines.

b. Santarem. From Mr. Bates' collection.

Genus 73. SECSIVA.

Fœm. Corpus gracile, convexum, glabrum. Caput prothorace angustius, cornu antico parvo porrecto conico subtus carinato antennarum articulum 1um non superante; frons longissima, perobliqua. Oculi globosi, sat magni, fere rotundi. Palporum articulus 4us 3o paullo longior; 5us 4o longior. Antennæ longæ, graciles, basi approximatæ. Prothorax longiusculus, subcompressus, subtilissime rugulosus, non carinatus, lateribus margineque postico rotundatis. Vagina lanceolata, arcuata, abdomine multo brevior. Pedes breves, robusti; femora uniseriatim spinulosa; tibiæ quatuor anteriores biseriatim quinquespinosæ; tibiæ posticæ quadriseriatim spinulosæ. Alæ corpore longiores.

Female. Body slender, convex, smooth, shining. Head narrower than the prothorax, narrowest in front; a short conical porrect protuberance between the antennæ, not extending beyond the first joint of the latter, keeled beneath; front very long and oblique. Eyes prominent, rather large, nearly round. Fourth joint of the maxillary palpi a little longer than the third; fifth subclavate, longer than the fourth. Antennæ long, slender, approximate. Prothorax elongated, slightly compressed, very finely rugulose, narrowest in front, without lateral keels; sides and hind border rounded, the latter notched on each side. Sheath of the oviduct lanceolate, curved, much shorter than the abdomen. Legs short, stout; femora with a row of minute spines; hind femora attenuated towards the tips; four anterior tibiæ with five spines on each side, which are longer in the fore tibiæ than in the middle tibiæ; hind tibiæ with four rows of minute spines, most of which are in the two upper rows. Wings of equal length, longer than the body. Fore wings thickly and irregularly reticulated.

This genus has much affinity to the *Conocephalidæ*.

1. Secsiva univitta.

Fœm. *Testacea; caput et prothorax nigro univittata; mandibulæ apice nigræ; oviductus apicem versus fulvus; alæ posticæ diaphanæ.*

Female. Testaceous. Head and prothorax with a black stripe. Eyes livid. Mandibles with black tips. Oviduct tawny towards the tip. Hind wings pellucid; veins pale. Length of the body 9—11 lines.

a, *b*. Victoria River, North Australia. Presented by J. R. Elsey, Esq.

Genus 74. DISCERATUS.

Disceratus, *Scud.*

1. Disceratus nubiger.

nubiger, *Scud.*

Salto, 10,000 feet above the sea, on the slope of the volcano of Antisana.

Genus 75. CLONIA.

Clonia, *Stal. Ofv. K. V. Ak. Forh.* 1855, 352.

1. Clonia Wahlbergi.

Wahlbergi, *Stal. Ofv. K. V. Ak. Forh.* 1855, 352.
Natal.

Genus 76. HORATOSPHAGA.

Horatosphaga, *Schaum, Monats. Berl. Acad.* 1853, 778.

1. Horatosphaga serrifera.

serrifera, *Schaum, Monats. Berl. Acad.* 1853, 778.
Mozambique.

Genus 77. HEXACENTRUS.

Hexacentrus, *Serv. Rev.* 49. *Burm. Handb. Ent.* ii. 714.

1. Hexacentrus plantaris.

plantaris, *Burm. Handb. Ent.* ii. 714.
Java.

2. Hexacentrus horridus.

horridus, *Burm. Handb. Ent.* ii. 714.
Australia.

Genus 78. EXOCEPHALA.

Exocephala, *Serv. Rev.* 63; *Hist. Orth.* 507.

1. Exocephala bisulca.

Locusta bisulca, *Enc. Meth.* x. 342—Exocephala bisulca, *Serv. Rev.* 63; *Hist. Orth.* 508.
Cayenne.

Genus 79. HARPEPHORA.

Harpephora, *Fisch. de Waldh. Bull. Mosc.* 1846, 479.

1. Harpephora fusca.

fusca, *Fisch. de W. Bull. Mosc.* 1846, 479.
Brazil.

2. Harpephora brachyptera.

brachyptera, *Fisch. de W. Bull. Mosc.* 1846, 479.
Brazil.

Genus 80. CONOCEPHALUS.

Locusta, *Rossi*, *Latr.*, *Charp.*—Conocephalus, *Thunb. Mem. Acad. St. Peters.* v. *Serv. Hist. Orth.* 513. *Burm. Handb. Ent.* ii. 704. *Fisch. de W. Fisch. Orth. Eur.* 245.

The *Conocephalidæ* commence with this genus, which is the typical form of that family.

Europe.

1. CONOCEPHALUS MANDIBULARIS.

Locusta tuberculata, *Rossi*, *Faun. Etr.* i. 269; *Mant.* i. 103. *Latr. Hist. Nat.* xii. 132—Locusta erythrosoma, *Enc. Meth.* x. 342—Locusta mandibularis, *Charp. Hor. Ent.* 106. *Germ. Faun. Ins. Eur.* 15, 10—Conocephalus mandibularis, *Serv. Rev.* 51; *Hist. Orth.* 521. *Burm. Handb. Ent.* ii. 705. *Fisch. de W. Orth. Ross.* 144, pl. 8, f. 5. *Fisch. Orth. Eur.* 244, pl. 14, f. 1.

South Europe. Algeria.

N. America.

2. CONOCEPHALUS ENSIGER.

Locusta acuminata, *Stoll*, *Spect. et Grill.* pl. 8, f. 27—Conocephalus ensiger, *Harr. Cat. Ins. Mass.* 56; *Rep.* 3rd Ed. 163, f. 79. *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 449.

a. North America.

3. CONOCEPHALUS ROBUSTUS.

robustus, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 449.

Cape Cod.

4. CONOCEPHALUS OBTUSUS.

obtusus, *Burm. Handb. Ent.* ii. 705. *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 450—dissimilis, *Serv. Hist. Orth.* 518. *Harr. Rep.* 3rd Ed. 164.

a. United States. Presented by E. Doubleday, Esq.
b. Jamaica. From Mr. Gosse's collection.
c. St. Domingo. From Mr. Tweedie's collection.
d. Brazil. From Mr. Argent's collection.

5. CONOCEPHALUS UNCINATUS.

uncinatus, *Harr. Rep.* 3rd Ed. 164. *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 450.

Alabama.

6. CONOCEPHALUS CREPITANS.

crepitans, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 450.

Texas. Nebraska.

Mexico.

A. Fastigium acutum. - - - - - - - Sallei.
B. Fastigium obtusum.
a. Alæ anticæ fusco punctatæ. - - - - Mexicanus.
b. Alæ anticæ fusco non punctatæ.
* Vagina corporis dimidio non longior. - - - - Nieti.
** Vagina corporis dimidio longior. - - - - contingens.

7. Conocephalus Sallei.

Sallei, *Sauss. Rev. Zool.* 1859, 207.

Mexico.

8. Conocephalus Mexicanus.

Mexicanus, *Sauss. Rev. Zool.* 1859, 207.

Mexico.

9. Conocephalus Nieti.

Nieti, *Sauss. Rev. Zool.* 1859, 207.

Mexico.

10. Conocephalus contingens.

Fœm. *Viridis, subtiliter punctatus; capitis fastigium breve, subascendens, basi subtus angulatum, margine antico latissimo subobtuso transverse nigro-lineato; oviductus rectus, corpore brevior; pedes sat graciles, femoribus posticis tibiisque quatuor anterioribus biseriatim spinosis, tibiis posticis quadriseriatim spinosis; alæ corpore valde longiores; alæ posticæ diaphanæ, pallido venosæ.*

Female. Green. Head and prothorax finely punctured. Cone of the head slightly ascending, extending a little beyond the sockets of the antennæ, slightly obtuse and very broad on the fore border, where there is a transverse black line; under side angular towards the front. Mandibles black towards the tips. Eyes pale; their disks livid. Sides of the prothorax less finely punctured than the flat disk. Prosternum armed with two spines. Mesosternum and metasternum obtusely bidentate. Oviduct straight, rather shorter than the body; vagina acute. Four anterior femora unarmed; hind femora and four anterior tibiæ with two rows of minute teeth beneath; hind femora a little longer than the oviduct; hind tibiæ with four rows of minute teeth. Wings rather less than twice the length of the body. Hind wings pellucid; veins pale. Length of the body 14 lines; expansion of the fore wings 45 lines.

The fastigium is not furrowed like that of *C. dentifrons*, and is not bordered with white like that of *C. occidentalis*, and it is distinguished from *C. Mexicanus* by the fore wings without brown speckles.

a. Mexico.

West Indies.

A. Fastigium acutum. - - - - - - ascendens.
B. Fastigium obtusum.
a. Alæ anticæ fusco guttatæ. - - - - - guttatus.
b. Alæ anticæ non guttatæ.
* Prothorax bivittatus. - - - - - - bilineatus.
** Prothorax non vittatus. - - - - - occidentalis.

11. Conocephalus guttatus.

guttatus, *Serv. Hist. Orth.* 518.

Cuba.

a, *b*. Jamaica. From Mr. Gosse's collection.
c. Jamaica.
d. West Coast of N. America Presented by Capt. Kellett and Lieut. Wood.

12. Conocephalus occidentalis.

occidentalis, *Sauss. Rev. Zool.* 1859, 207.

Haiti.

13. Conocephalus ascendens.

Fœm. *Viridis; caput et prothorax subtiliter punctata, albido bivittata; fastigium lanceolatum, subascendens, supra sulcatum basi subtus dentatum; oviductus valde arcuatus, abdominis dimidis longior; pedes sat graciles, coxis anticis unispinosis, femoribus uniseriatim spinosis, femoribus posticis tibiisque quatuor anterioribus biseriatim spinosis; alæ corpore longiores; alæ posticæ diaphanæ, pallido venosæ.*

Female. Green. Head and prothorax finely punctured. Cone of the head lanceolate; acute, furrowed above, obliquely ascending, a little longer than the breadth between the eyes, testaceous except towards the base, dentate at the base beneath; a whitish stripe extending from the eye to the hind border of the head and extending along the keel on each side of the prothorax; front slightly and transversely rugulose; labrum and mandibles whitish. Prothorax with the sides of the flat dorsum parallel. Mesosternum and metasternum with a much rounded lobe on each side of the hind border. Oviduct much curved upward, a little more than half the length of the abdomen; sheath very broad. Femora with a single row of minute spines; four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows; a spine on each of the fore coxæ. Fore wings longer than the body. Hind wings pellucid, rather shorter than the fore wings; veins pale. Length of the body 15 lines; expansion of the fore wings 42 lines.

It cannot be ascertained from the specimen described whether the prosternum is armed with spines.

a. Jamaica. From Mr. Gosse's collection.

14. Conocephalus bilineatus.

Mas. *Viridis, C. obtuso similis; caput brevius, glabrum, fastigio albido marginato, labro mandibulisque pallidissime rufis; prothorax subtiliter punctatus, vittis duabus flavis rufo marginatis; prosternum bispinosum; abdomen fuscum; femora quatuor posteriora uniseriatim spinosa.*

Male. Green. Head smooth. Cone like that of *C. obtusus*, bordered with whitish on each side above and more broadly on the fore border; labrum and mandibles very pale red. Prothorax finely punctured, with two yellow almost parallel stripes which are bordered with red on the inner side. Prosternum with two long spines. Mesosternum and metasternum bilobed. Abdomen brown. Four posterior femora with one row of minute spines beneath; four anterior tibiæ with two rows of spines; hind tibiæ with four rows. Wings not fully developed. Length of the body 11½ lines.

The head is much shorter than that of *C. obtusus* and the eyes are comparatively near the hind border.

a. St. Domingo. From Mr. Hearse's collection.

South America.

A. Clypeus nigro fasciatus.
a. Antennæ basi pallidæ. - - - - - nigridens.
b. Antennæ basi nigræ. - - - - - brevicauda.
B. Clypeus non fasciatus.
a. Fastigium valde productum.
* Prothorax non vittatus. - - - - - xiphias.
** Prothorax bivittatus. - - - - - gracillimus.
b. Fastigium non valde productum.
* Alæ anticæ notatæ.
† Femora postica nigro spinosa. - - - - irroratus.
†† Femora postica non nigro spinosa.
‡ Fastigium antennarum articulum 1um paullo superans.
§ Fastigium latiusculum.
+ Fastigium nigro non fasciatum. - - - alienus.
+ + Fastigium nigro fasciatum. - - - - viridator.
‡‡ Fastigium antennarum articulum 1um longe superans.
§ Fastigium antice angustum.
+ Prothorax vittatus.
→ Caput sat productum. - - - - - alligatus.
→→ Caput subproductum. - - - - - colligatus.
+ + Prothorax non vittatus. - - - - - purpurascens.
§§ Fastigium antice latum. - - - - simulator.
§§§ Fastigium latissimum. - - - - - latifrons.
** Alæ anticæ non notatæ.
† Fastigium non sulcatum.
‡ Fastigium nigro non fasciatum. - - - - tenuicornis.
‡‡ Fastigium nigro fasciatum.
§ Fastigium vix ascendens. - - - - maxillosus.
§§ Fastigium sat ascendens. - - - - exaltatus.
†† Fastigium sulcatum. - - - - - dentifrons.

15. Conocephalus nigridens.

nigridens, *Burm. Handb. Ent.* ii. 704.

Brazil?

16. Conocephalus brevicauda (Nomen bis lectum).

brevicauda, *Scud.*

Napo River.

17. Conocephalus tenuicauda.

tenuicauda, *Scud.*

Napo or Maranon.

18. Conocephalus xiphias.

Locusta xiphias, *Enc. Meth.* x. 342—Conocephalus xiphias, *Serv. Rev.* 52; *Hist. Orth.* 516.

Cayenne.

a. Santarem. From Mr. Bates' collection.

19. Conocephalus irroratus.

irroratus, *Burm. Handb. Ent.* ii. 705.

Brazil.

20. Conocephalus maxillosus.

Locusta maxillosa, *Fabr. Ent. Syst.* ii. 37—Conocephalus maxillosus, *Serv. Rev.* 52; *Hist. Orth.* 520.

a. Brazil. From Mr. Mornay's collection.

21. Conocephalus dentifrons.

dentifrons, *Sauss. Rev. Zool.* 1859, 207.

Bahia.

22. Conocephalus gracillimus.

Mas. *Viridis, tenuis; caput et prothorax punctata, albido bivittata; fastigium conicum, perparum ascendens, apice obtusum, basi subtus dentatum; antennæ piceæ, basi pallidæ; prosternum bispinosum; pedes gracillimi, femoribus posticis tibiisque spinulosis; alæ longæ, diaphanæ, viridi venosæ.*

Male. Green, very slender. Head and prothorax punctured, with two whitish stripes which slightly diverge from each other hindward. Cone of the head very slightly ascending, longer than the distance between the eyes and the hind border, obtuse at the tip, obtusely dentate beneath at its base. Antennæ piceous, pale towards the base, full twice the length of the body. Prothorax with the flat dorsum slightly widening hindward. Legs very slender; prosternum armed with two long slender spines; tibiæ

and hind femora with very minute spines. Wings pellucid, nearly twice the length of the prothorax and the abdomen together; veins green. Length of the body 18 lines; expansion of the fore wings 25 lines.

a. Brazil. Presented by J. P. G. Smith, Esq.

23. Conocephalus alienus.

Mas. *Viridis; fastigium brevissimum, albido marginatum, apice et subtus basi rotundatum; antennæ fulvæ; pedes sat longi, tibiis quatuor posterioribus femoribusque spinulosis; alæ anticæ longæ, nigro subpunctatæ, tympano recto diaphano; alæ posticæ diaphanæ, viridi venosæ.*

Male. Green. Head smooth; cone very short, bordered with whitish on each side and on the fore border, where it is rounded, its under side rounded at the base; labrum and mandibles pale reddish. Eyes black. Antennæ tawny. Thorax minutely punctured. Abdomen testaceous-green. Femora and tibiæ, excepting the fore tibiæ, with minute spines. Fore wings a little longer than the hind wings, with a few irregularly placed black points; tympanum of the right wing with a round pellucid disk. Hind wings pellucid; veins green. Length of the body 14 lines; expansion of the fore wings 34 lines.

a. Guayaquil. Presented by Dr. Hooker.

24. Conocephalus viridator.

Mas. *Viridis; fastigium brevissimum, albido marginatum, antice latum, subtus nigro fasciatum et basi angulatum; antennæ piceæ, basi pallidæ; pedes sat longi, tibiis quatuor posterioribus femoribusque spinulosis; alæ longæ; alæ anticæ tympano recto diaphano; alæ posticæ diaphanæ, viridi venosæ.*

Male. Green. Head smooth; cone very short, bordered with whitish on each side and on the fore border, where it is broad, its under side with a black band along the fore border and with an obtuse angle at the base; labrum and mandibles testaceous, the latter black towards the tips. Eyes piceous. Antennæ piceous, pale towards the base. Femora and tibiæ, except the fore femora, with minute spines as usual. Wings of equal length, very much longer than the body. Fore wings with a pellucid tympanum on the right side. Hind wings pellucid; veins green. Length of the body 13 lines; expansion of the fore wings 39 lines.

The structure of the prosternum cannot be ascertained in the specimen here described.

a. Honduras. From Mr. Miller's collection.

25. Conocephalus alligatus.

Mas. *Testaceus, gracilis; caput et prothorax fuscescente lineata; fastigium breve, subtus nigricans, apice subtusque basi rotundatum, gutta subtus albida elongata apicali; prosternum bispinosum; abdomen vitta dorsali tenui fusca, punctis lateralibus nigris; pedes graciles, tibiis quatuor posterioribus femoribusque spinulosis, femoribus tibiisque posticis subtus fuscis; alæ anticæ longæ, nigro punctatæ; alæ posticæ diaphanæ, albo venosæ.*

Male. Testaceous, slender. Head and prothorax punctured, with some slender indistinct brownish stripes. Cone of the head blackish beneath, rounded at the tip and at the base beneath, much shorter than the space between it and the hind border of the head; front with an elongated whitish dot between the eyes. Mandibles black along the inner side and at the tips. Prothorax with the stripes darkest on the hind border, which is very slightly rounded. Prosternum with two slender spines which have brownish tips; mesosternum and metasternum rather acutely bilobed. Abdomen with a slender brown dorsal stripe and with a row of black points on each side beneath. Femora and four posterior tibiæ with the usual minute spines; hind femora and hind tibiæ mostly brown beneath. Wings longer than the body. Fore wings a little longer than the hind wings, with many irregularly placed black points. Hind wings pellucid; veins white. Length of the body 11 lines; expansion of the fore wings 31 lines.

a. Para. From Mr. Bates' collection.

26. Conocephalus colligatus.

Mas et fœm. *Testaceus, C. alligato similis, fastigio paullo longiore et angustiore; caput et prothorax fusco albidoque bivittata; oculi nigro aut viridi vittati; abdominis latera nigro punctata; oviductus fere rectus, corpori æquilongus; alæ anticæ longæ, nigro punctatæ; alæ posticæ diaphanæ, pallido venosæ.*

Male and female. Testaceous. Head and prothorax punctured, with a brown and a whitish stripe on each side. Head with a whitish oblique streak extending hindward from each eye; cone like that of the preceding species, but a little longer and narrower, its under side rounded at the base and with a black band near the tip. Eyes with one or two black or green stripes. Abdomen with a row of black points on each side. Oviduct almost straight, about as long as the body. Fore wings a little longer than the hind wings, with several black points. Hind wings pellucid; veins pale. Length of the body 12—13 lines; expansion of the fore wings 34—36 lines.

This species is extremely like the preceding one, but the cone in front of the antennæ is rather shorter.

a. Columbia.
b. Rio Janeiro. Presented by — Buck, Esq.
c. Brazil. Presented by J. P. G. Smith, Esq.

27. Conocephalus purpurascens.

Fœm. *Fulvus, purpurascente rufo aut viridescente varius; fastigium longi-conicum, subsulcatum, albido marginatum, subtus subcarinatum apice nigrum basi spina albida rotundata armatum; frons testaceo varia, apud fastigium angulatum albido uniguttatum; oculi bicolores; antennæ albido annulatæ; prothorax subtiliter scaber; prosternum bispinosum; oviductus rectus, corpore paullo longior; femora quatuor anteriora uniseriatim spinulosa; alæ longæ; alæ posticæ diaphanæ, pallido venosæ.*

Female. Tawny, here and there more or less purplish red, or with a greenish tinge. Head smooth, elongate-conical and very slightly

furrowed in front of the eyes, where it is bordered with whitish on each side and at the tip; cone beneath slightly keeled, black towards the tip, with a whitish rounded spine at the base; front mottled with testaceous, angular and with a whitish elongated dot near the cone; face short, excavated. Mandibles with black tips. Eyes testaceous on the inner side, green on the outer side. Antennæ with numerous slender whitish rings. Prothorax finely scabrous. Sternum with the usual form. Oviduct straight, a little longer than the body. Four anterior femora with one row of spines, which are very few and small beneath the fore femora; hind femora and four anterior tibiæ with two rows of black-tipped spines; hind tibiæ with four rows of spines. Wings rather less than twice the length of the body. Hind wings pellucid, with pale veins. Length of the body 15 lines; expansion of the fore wings 42 lines.

a. Demerara. From Mr. Bowers' collection.

28. Conocephalus simulator.

Fœm. *Fulvus, subtus testaceus; fastigium breve, albido marginatum, antica latum et rotundatum, subtus basi angulatum apice nigricante fasciatum; frons purpurascente varia, gutta apud fastigium albida longiuscula; antennæ nigricantes, basi fulvæ; prothoracis margo posticus albido nigroque punctatus; prosternum bispinosum; oviductus rectus, corpore brevior; femora subtus nigricantia; femora antica non spinosa; alæ longæ; alæ anticæ diaphanæ, pallido venosæ.*

Female. Tawny, testaceous beneath. Head and prothorax finely punctured. Cone of the head short, whitish on each side and on the fore border, where it is broad and rounded; under side with a narrow blackish band near the tip, obtusely angular at the base; front partly purplish, with a whitish elongated dot between the antennæ. Mandibles pale red, with black tips. Antennæ blackish, tawny towards the base. Prothorax with three whitish points on the hind border, each with a smaller black point at each end. Sternum of the usual form. Oviduct straight, rather shorter than the body; femora blackish beneath; middle femora with a single row of a few minute spines; hind femora and four anterior tibiæ with two rows of black-tipped spines; hind tibiæ with four rows. Wings rather less than twice the length of the body. Hind wings pellucid; veins pale. Length of the body 17 lines; expansion of the fore wings 50 lines.

The cone of the head is shorter and much broader in front than that of the preceding species.

a. Brazil? From Mr. Argent's collection.

29. Conocephalus? latifrons.

Fœm. *Testaceus, viridi varius; fastigium latissimum, antice rotundatum, antennarum articulum 1um vix superans, basi subtus rotundatum; antennæ piceæ, basi testaceæ; prothorax lineis duabus nigricantibus valde interruptis; prosternum bispinosum; oviductus piceus, rectus, basi testaceus, corpore vix brevior; pedes brevi, robusti, femoribus anticis unispinosis, femoribus intermediis trispinosis; alæ abdomen non superantes; alæ posticæ diaphanæ, viridi venosæ.*

Female. Testaceous, partly green. Head and prothorax thickly punctured. Cone of the head very broad, rounded in front, hardly extending beyond the first joint of the antennæ, its under side rounded at the base and very narrowly divided from the front. Mandibles black along the inner side. Antennæ piceous, testaceous at the base. Prothorax with two much interrupted blackish lines on the keels. Prosternum with two long slender spines. Oviduct piceous, straight, testaceous at the base, nearly as long as the body. Legs short, stout; spines with black tips; fore femora with one minute spine near the tip; middle femora with three; hind femora and four anterior tibiæ with two rows of spines; hind tibiæ with four rows. Wings not extending beyond the abdomen. Hind wings pellucid; veins green. Length of the body 18 lines; expansion of the wings 27 lines.

This species is much allied to the genus *Locusta* and perhaps should be separated from *Conocephalus.*

a. Venezuela. From Mr. Birschell's collection.

30. Conocephalus exaltatus.

Fœm. *Viridis; fastigium testaceum, subascendens, subsulcatum, antice latum rotundatum, antennarum articulum 1um superans, subtus carinatum basi angulatum apice nigro fasciatum; prosternum bispinosum; oviductus testaceus, rectus, corpore paullo brevior; pedes longi, graciles, femoribus anticis unispinosis, femoribus intermediis trispinosis; alæ longæ; alæ posticæ diaphanæ, albo venosæ.*

Female. Green. Head and prothorax minutely punctured. Cone of the head testaceous, slightly ascending, with a slight longitudinal furrow, broad and rounded on the fore border, extending somewhat beyond the first joint of the antennæ, its under side keeled with an angle at the base and with a black band near the fore border; labrum and mandibles testaceous, the latter black along the inner side. Antennæ black near the base, which is green. Prosternum with two long slender spines. Oviduct testaceous, straight, a little shorter than the body. Legs long, slender; fore femora with one minute spine near the tip; middle femora with three in a row; hind femora and four anterior tibiæ with two rows of spines; hind tibiæ with four rows. Fore wings slightly acute, a little longer than the hind wings. Hind wings pellucid, much longer than the body; veins white. Length of the body 18 lines; expansion of the fore wings 54 lines.

a. Venezuela. From Mr. Dyson's collection.

Canaries.

31. Conocephalus brevicauda.

Locusta (Conocephalus) brevicauda, *Brullé, Iles Canaries*, 76.

Canaries.

South Africa.

A. Fastigium longissimum.
a. Fastigium ascendens. - - - - lanceolatus.
b. Fastigium non aut vix ascendens.
* Fastigium obtusum. - - - - hastifer.
** Fastigium acutum. - - - - pungens.
B. Fastigium non longissimum.
a. Frons nigra. - - - - - annulicornis.
b. Frons pallida.
* Fastigium apice angustum.
† Prothoracis margo posticus valde incisus. - porrigens.
†† Prothoracis margo posticus subincisus. - - indicator.
** Fastigium apice latum.
† Alæ abdomen paullo superantes. - - - diversus.
†† Alæ abdomen longe superantes.
‡ Frons apud verticem albido guttata. - - obscurus.
‡‡ Frons albido non guttata.
§ Prothoracis dorsum postice latum. - - amplus.
§§ Prothoracis dorsum lateribus subparallelis.
+ Corpus viride. - - - - - consobrinus.
++ Corpus obscurum. Fastigium paullo latius.
+ Prothorax non vittatus. - - - - vicinus.
++ Prothorax bivittatus. - - - - subvittatus.

32. Conocephalus lanceolatus.

Locusta lanceolata, *Fabr. Ent. Syst.* ii. 39—Conocephalus lanceolatus, *Burm. Handb. Ent.* ii. 704.

♂. South Africa.

33. Conocephalus hastifer.

hastifer, *Schaum, Monats. Akad. Wissen. Berl.* 1853.

Mozambique.

34. Conocephalus pungens.

pungens, *Schaum, Monats. Akad. Wissen. Berl.* 1853.

Mozambique.

35. Conocephalus annulicornis.

Mas. *Testaceus, subtiliter scaber; fastigium lanceolatum, subtus nigrum; frons nigra, flavo uniguttata; antennæ pallidæ, nigro annulatæ; sterni discus piceus; pedes robusti; alæ anticæ nigro subconspersæ; alæ posticæ diaphanæ, pallido venosæ.*

Male. Testaceous. Head and prothorax finely scabrous. Head with a lanceolate porrect horizontal horn in front of the eyes longer than the hind part, black beneath; front black; a dot near the horn, clypeus, labrum and palpi yellow. Antennæ pale testaceous, with many black rings.

Prothorax with two transverse furrows; lateral keels well defined. Sternum with a piceous disk; prosternum with two short spines. Legs stout; femora and four anterior tibiæ with two rows of short spines; hind tibiæ with four rows. Fore wings longer than the hind wings, minutely, irregularly and very thinly speckled with black, tympanum of the right wing pellucid, large. Hind wings pellucid; veins testaceous. Length of the body 18½ lines; expansion of the fore wings 37½ lines.

a. Natal. From M. Gueinzius' collection.

36. Conocephalus porrigens.

Fœm. *Testaceus, gracilis, viridi varius; caput et prothorax subtiliter punctata; fastigium breve, obtusum, basi subtus acutangulatum; antennæ piceæ, basi piceæ; oviductus fere rectus, abdomine paullo longior; alæ anticæ corpore longiores, nigro subpunctatæ; alæ posticæ diaphanæ.*

Female. Testaceous, slender, partly green, probably wholly green when recent. Head and prothorax punctured. Head with a porrect horizontal horn, which is obtuse at the tip and is shorter than the hinder part of the head and forms an acute angle at its base beneath adjoining the angle of the front, which is almost smooth. Mandibles black towards the tips. Antennæ piceous, testaceous towards the base. Prothorax deeply notched on each side of the hind border, which is slightly curved. Prosternum with two long spines; mesosternum and metasternum with two acutely dentate lobes. Oviduct almost straight, a little longer than the abdomen. Legs slender; hind femora and four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows. Wings rather longer than the body. Fore wings with a few black points in the disk. Hind wings pellucid; veins green. Length of the body 16 lines; expansion of the fore wings 42 lines.

a. Natal. From M. Gueinzius' collection.

37. Conocephalus indicator.

Mas. *Testaceus, gracilis; caput et prothorax sublineata, subtiliter punctata; fastigium longiusculum apice rotundatum, basi subtus non angulatum; frons nigro biguttata; sternum nigro interrupte bivittatum; oviductus arcuatus, lanceolatus, abdomine brevior; pedes breviusculi; alæ anticæ nigro subpunctatæ, corpore paullo longiores; alæ posticæ diaphanæ.*

Female. Testaceous, slender. Head and prothorax minutely punctured, with some more or less indistinct darker parallel lines. Head with a porrect horizontal horn in front of the eyes; this horn is rounded at the tip and is a little shorter than the hinder space, and is not angular at its base beneath; front with a black dot on each side adjoining the face. Mandibles black towards the tips. Antennæ testaceous. Prothorax with two well-defined lateral keels. Prosternum with two long spines; lobes of the mesosternum and of the metasternum rounded; a black interrupted stripe on each side. Oviduct curved, lanceolate, shorter than the abdomen. Legs rather short; hind femora and four anterior tibiæ with a few minute spines in two rows; hind tibiæ with four rows. Fore wings a little longer than

the hind wings and than the body, with very few black points in the disk. Hind wings pellucid; veins testaceous. Length of the body 11—12 lines; expansion of the fore wings 25—28 lines.

a. South Africa. Presented by Sir A. Smith.
b. Natal. From M. Gueinzius' collection.

38. Conocephalus diversus.

Fœm. *Pallide testaceus, gracilis, subtiliter punctatus; fastigium brevissimum, latissimum, antice rotundatum, basi subtus subangulatum; mandibulæ et antennæ fulvæ; oviductus rectus, abdomine longior; pedes graciles; alæ anticæ corpore paullo breviores; alæ posticæ diaphanæ.*

Female. Pale testaceous or green, slender. Head and prothorax minutely punctured. Horn of the head very broad and short, much rounded, not extending far beyond the first joint of the antennæ, forming a rounded angle at the base beneath, where the front is also angular. Mandibles tawny; tips black. Apical joints of the palpi clavate and tawny at the tips. Antennæ tawny. Prothorax with two very indistinct transverse furrows; lateral keels well defined; hind border slightly rounded, with a deep notch on each side. Prosternum with two long slender spines. Oviduct straight, somewhat longer than the abdomen. Legs slender; hind femora and four anterior with a few minute spines in two rows. Fore wings a little shorter than the body, a little longer than the hind wings, which are pellucid and have green veins. Length of the body 13 lines; expansion of the fore wings 21 lines.

a. South Africa. Presented by Sir A. Smith.

39. Conocephalus obscurus.

Fœm. *Testaceus, gracilis; caput et prothorax quadrisubvittata, subtiliter punctata; fastigium brevissimum, latissimum, apice rotundatum pallide flavum, basi subtus subangulatum; frons apice flavo uniguttata; mandibulæ pallide rufæ, apice nigræ; sternum nigricante interrupte vittatum; oviductus rectus, corpore vix brevior; pedes graciles, piceo bivittati; alæ anticæ nigricante guttatæ, corpore longiores; alæ posticæ cinereæ, fuscescente venosæ.*

Female. Testaceous, slender. Head and prothorax thickly and finely punctured, with four irregular slender paler stripes. Horn of the head horizontal, very broad, pale yellow and not narrower in front, hardly extending beyond the first joint of the antennæ, forming a rounded angle at the base beneath, where it is contiguous to an elongated pale yellow dot on the front, which is smooth. Mandibles pale red, with black tips. Eyes with a black incomplete ringlet. Prothorax with the hind border slightly rounded, notched on each side; lateral keels distinct. Sternum with a blackish interrupted stripe; prosternum with two long slender spines. Oviduct straight, nearly as long as the body. Legs slender, with two piceous stripes which are most determinate on the tarsi; hind femora and four anterior tibiæ with a few minute spines in two rows; hind tibiæ with

four rows. Wings longer than the body. Fore wings with several blackish dots. Hind wings cinereous, with brownish veins. Length of the body 13 lines; expansion of the fore wings 30 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

40. Conocephalus amplus.

Mas. *Testaceus; caput et prothorax subtiliter punctata, fuscescente bivittata; fastigium brevissimum, latissimum, antice rotundatum, basi subtus subangulatum; antennæ fulvæ, basi subtus testaceæ; prothoracis dorsum postice latum; sternum nigro vittatum; pedes graciles, tibiis basi nigro notatis, tarsis nigro bivittatis; alæ anticæ corpore longiores, basi latæ et nigricante notatæ; alæ posticæ diaphanæ, testaceo venosæ.*

Male. Testaceous. Head and prothorax thickly and minutely punctured, with two intermediate brownish stripes. Head with a horizontal horn which extends a little beyond the first joint of the antennæ and is rounded and not narrower in front, and forms a slight angle contiguous to the attenuated part of the smooth front. Antennæ tawny, testaceous at the base. Dorsum of the prothorax widening much from the fore border to the hind border, which is rounded and slightly notched on each side; lateral keels distinct. Sternum with a black stripe; prosternum with two long slender spines. Legs slender; tibiæ with a black mark at the base; tarsi and tips of the hind tibiæ with two black stripes; hind femora and four anterior tibiæ with some small spines in two rows; hind tibiæ with four rows. Fore wings rather longer than the hind wings, very much longer than the body, broad at the base, where there is a blackish mark on each and where the tympanum of the right wing is large and pellucid. Hind wings pellucid; veins testaceous. Length of the body 14 lines; expansion of the fore wings 44 lines.

a. Natal. From M. Gueinzius' collection.

41. Conocephalus consobrinus.

Mas et fœm. *Viridis aut testaceus; corpus gracile; caput et prothorax subtiliter punctata; fastigium breve, apice rotundatum, basi subtus angulatum; oviductus rectus, abdomine longior; pedes graciles, tibiis basi nigro-notatis, tarsis subtus nigris; alæ anticæ nigro subpunctatæ, corpore longiores; alæ posticæ diaphanæ, viridi venosæ.*

Male and female. Grass-green or pale testaceous, slender. Head and prothorax thickly and minutely punctured. Front and hinder part of the head above smooth; horn horizontal, extending a little beyond the first joint of the antennæ, rounded and not narrower in front, forming a slightly acute angle at the base beneath. Mandibles with black tips. Prothorax with two very slight transverse furrows; hind border slightly rounded, notched on each side; lateral keels defined. Prosternum with two long slender spines; mesosternum and metasternum with two angular lobes. Oviduct straight, somewhat longer than the abdomen. Legs slender; tibiæ with a black mark at the base; tarsi black beneath; hind femora and four anterior tibiæ with a few small spines in two rows; hind tibiæ with four rows. Fore wings a little longer than the hind wings, very much longer

than the body, with a few black points in the disk. Hind wings pellucid; veins green. Length of the body 11—15 lines; expansion of the fore wings 32—44 lines.

Nearly allied to *C. differens*.

a. South Africa. Presented by Sir A. Smith.
b—f. Natal. From M. Gueinzius' collection.

42. Conocephalus vicinus.

Mas et fœm. *Testaceus; caput et prothorax punctata; fastigium breve, apice rotundatum, subtus basi angulatum; oviductus rectus, corpore brevior; pedes longi, graciles; alæ anticæ longissimæ, nigro subpunctatæ; alæ posticæ diaphanæ, testaceo venosæ.*

Male and female. Testaceous. Head and prothorax thickly punctured. Head with a horizontal horn which extends a little beyond the first joint of the antennæ and is rounded and not narrower in front, and forms at the base beneath a slightly acute angle; front smooth. Mandibles with black tips. Prothorax with two indistinct transverse furrows; hind border slightly rounded, with a deep excavation on each side. Prosternum with two slender spines. Oviduct straight, rather shorter than the body. Legs long, slender; hind femora and four anterior tibiæ with a few minute spines in two rows; hind tibiæ with four rows. Fore wings less than twice the length of the body, a little longer than the hind wings, with a few black points in the disk. Hind wings pellucid; veins testaceous. Length of the body 11—15 lines; expansion of the fore wings 38—54 lines.

a. Congo. Presented by Sir J. Richardson.
b—e. East Africa. Presented by Earl Russell.
f. South Africa. Presented by Sir A. Smith.

43. Conocephalus subvittatus.

Fœm. *Testaceus, gracilis; caput et prothorax punctata, vittis nonnullis pallide fuscis vittisque duabus obscure fuscis; fastigium breve, apice rotundatum, basi subtus subangulatum; antennæ fulvæ, basi testaceæ; sternum nigricante interrupte vittatum; oviductus vix arcuatus, corpore paullo brevior; pedes graciles, femoribus fusco subvittatis; alæ anticæ corpore paullo longiores, vitta guttisque paucis nigricantibus; alæ posticæ cinereæ, testaceo venosæ.*

Female. Testaceous, slender. Head and prothorax thickly and minutely punctured, with several pale brown and two dark brown stripes. Horn of the head horizontal, extending a little beyond the first joint of the antennæ, rounded and not narrower in front, forming a rounded angle at the base beneath; front mostly smooth. Eyes mottled with black. Antennæ tawny, testaceous at the base. Prothorax notched on each side of the slightly rounded hind border; lateral keels defined. Sternum with an interrupted blackish stripe; prosternum with two slender spines. Oviduct hardly curved, a little shorter than the body. Legs slender; femora slightly striped with brown; hind femora and four anterior tibiæ with a few minute spines in two rows; hind tibiæ with four rows. Wings a little longer than the body. Fore wings with a blackish stripe and with a few

blackish dots. Hind wings cinereous; veins testaceous. Length of the body 14 lines; expansion of the fore wings 34 lines.

a. Natal. From M. Gueinzius' collection.

Madagascar.

44. Conocephalus sexpunctatus.

sexpunctatus, *Serv. Hist. Orth.* 517.

Madagascar.

45. Conocephalus abruptus.

Mas. *Testaceus, gracilis; caput et prothorax punctata; fastigium longi-conicum, basi subtus acute angulatum; pedes graciles; alæ anticæ nigro subpunctatæ, corpore multo longiores; alæ posticæ diaphanæ, testaceo venosæ.*

Male. Testaceous, slender. Head and prothorax thickly and minutely punctured. Horn of the head horizontal, elongate-conical, a little shorter than the space from its base to the hind border, acutely angular at its base beneath; front smooth. Prothorax with two very slight transverse furrows; hind border slightly rounded, deeply notched on each side, dorsum flat, increasing in breadth hindward; lateral keels very distinct. Prosternum with two slender spines. Legs slender; hind femora and four anterior tibiæ with a few spines in two rows; hind tibiæ with four rows. Wings much longer than the body. Fore wings with a few black points. Hind wings pellucid; veins testaceous. Length of the body 14 lines; expansion of the fore wings 38 lines.

It closely resembles *C. indicator* in the structure of the horn in front of the head, but the legs are much longer.

a. Madagascar. From Madame Ida Pfeiffer's collection.

46. Conocephalus differens.

differens, *Serv. Hist. Orth.* 519.

Mauritius. Isle Bourbon.

South Asia.

A. Fastigium brevi-conicum.
a. Prothorax non vittatus. - - - - - acuminatus.
b. Prothorax bivittatus. - - - - - interruptus.
c. Prothorax lineatus. - - - - - - lineosus.
B. Fastigium longi-conicum.
a. Fastigium non tuberculatum.
* Fastigium non marginatum.
† Tibiæ sat validæ.
‡ Prothorax non vittatus. - - - - - dorsalis.
‡‡ Prothorax vittatus. - - - - - strenuus.
†† Tibiæ graciles.
‡ Caput prothorace multo brevius.
§ Alæ anticæ nigro non punctatæ. - - - - varius.
§§ Alæ anticæ nigro punctatæ.

+	Alæ posticæ diaphanæ. - - - - -	incertus.
++	Alæ posticæ cinereæ. - - - - - -	femoralis.
‡‡	Caput prothorace vix brevius. - - - -	rosaceus.
**	Fastigium marginatum. - - - - -	spatulatus.
b.	Fastigium tuberculatum. - - - - -	concisus.

47. Conocephalus acuminatus.

Locusta acuminata, *Fabr. Ent. Syst.* ii. 39—Conocephalus acuminatus, *Burm. Handb. Ent.* ii. 705—Locusta (Conocephalus) acuminata, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 213.

South Asia.

a. ———?

48. Conocephalus crassiceps.

Locusta (Conocephalus) crassiceps, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 212.

Japan.

49. Conocephalus interruptus.

Mas. *Viridis, gracilis, flavo bilineatus; caput glabrum; fastigium breve, latum, apice rotundatum, basi subtus subangulatum; prothorax subtiliter punctatus, carinis lateralibus bene determinatis; pedes graciles, femoribus quatuor anterioribus inermibus; alæ posticæ pellucidæ, pallido venosæ.*

Male. Grass-green, slender. Head smooth; fastigium broad, rounded and not narrower in front, with a pale yellow stripe on each side, extending a little beyond the first joint of the antennæ, forming a rounded angle at the base beneath. Mandibles and antennæ testaceous. Eyes testaceous, with two blackish bands. Prothorax thickly and minutely punctured, with two very slender transverse furrows across the flat dorsum, which has a slightly rounded hind border and a yellow line along each of its distinct lateral keels. Spines of the prosternum long, slender. Legs slender; hind femora and four anterior tibiæ with two rows of spines; hind tibiæ pale tawny, with four rows. Wings much longer than the body. Hind wings pellucid; veins green. Length of the body 15 lines; expansion of the fore wings 34 lines.

This species does not differ from *C. acuminatus* in the shape of the fastigium, but the sides of the prothorax are more rounded.

a. North Bengal. From Lieut. Campbell's collection.

50. Conocephalus lineosus.

Mas. *Testaceus, gracilis, subtiliter punctatus, subvittatus; fastigium breve, latum, apice rotundatum, subtus basi subangulatum; prothoracis carinæ laterales vix determinatæ; sternum vittis duabus interruptis nigricantibus; abdomen e guttis nigricantibus quadrivittatum; pedes graciles; alæ anticæ fusco punctatæ.*

Male. Testaceous, slender. Head and prothorax thickly and minutely punctured, with many slender pale brownish stripes. Fastigium

broader than long, rounded and not narrower in front, extending a little beyond the first joint of the antennæ, forming at the base beneath a slight angle which is contiguous to the slight spine on the front. Mandibles with blackish tips. Prothorax with a flat dorsum, with a slightly rounded hind border, and with two slight lateral keels. Spines of the prosternum long, slender. Sternum with an interrupted blackish stripe on each side. Abdomen with two rows of blackish dots on each side. Legs slender; spines as usual. Wings extending much beyond the body. Fore wings with a few brown points. Hind wings pellucid; veins pale. Length of the body 12 lines; expansion of the fore wings 33 lines.

The fastigium is a little shorter and less rounded in front than that of the two preceding species.

a. China. Presented by G. T. Laye, Esq.

51. Conocephalus dorsalis.

Mas. *Viridis, dense punctatus, subtus testaceus; fastigium longi-conicum, acutum, subtus carinatum; prothorax carinis lateralibus bene determinatis, postice subochraceus; pedes sat validi, femoribus quatuor anterioribus subspinosis; alæ anticæ postice ochraceæ; alæ posticæ diaphanæ, pallido venosæ.*

Male. Grass-green, mostly testaceous beneath. Head and prothorax very thickly punctured. Fastigium elongate-conical, acute, keeled beneath, as long as the hinder part of the head; front with a short rounded spine adjoining the fastigium; clypeus smooth, green. Mandibles with black tips. Prothorax with two distinct lateral keels; hind part pale ochraceous; transverse furrows very indistinct; fore border and sides very slightly excavated in the middle; hind border nearly straight, with the usual notch on each side. Legs rather stout; four anterior femora with a few spines; hind femora and four anterior tibiæ with two rows of spines; hind tibiæ with four rows. Wings extending very much beyond the abdomen. Fore wings pale ochraceous along the hind border. Hind wings pellucid; veins pale. Length of the body 18 lines; expansion of the fore wings 56 lines.

a. Amoy, China. From Mr. Stevens' collection.

52. Conocephalus strenuus.

Mas. *Testaceus, dense punctatus; caput pallido quinque vittatum; fastigium longi-conicum, subtus subcarinatum; frons subsulcata, fascia antica interrupta subarcuata; mandibulæ nigræ; prothorax pallido trivittatus; pedes sat robusti, femoribus quatuor anterioribus subspinosis; alæ posticæ diaphanæ, pallido venosæ.*

Male. Testaceous. Head and prothorax thickly punctured, with two paler stripes which extend along the distinct lateral keels of the prothorax. Head with a middle pale stripe and with two others exterior to those before mentioned and extending from the eyes to the hind border; fastigium elongate-conical, acute, shorter than the hinder part of the head, slightly keeled beneath, where it is angular at the base; front with a slight longitudinal furrow and with a black curved interrupted band on its fore border.

Mandibles mostly black. Prothorax with two transverse furrows, the fore one slightly undulating, the hind one very indistinct; fore border very slightly excavated; sides almost straight; hind border very slightly rounded. Prosternum with two spines. Legs rather stout; four anterior femora with a few minute spines; hind femora and four anterior tibiæ with two rows of spines, the former with a reddish stripe on the outer side; hind tibiæ quadrilateral and with four series of spines. Wings nearly twice the length of the abdomen. Hind wings pellucid; veins pale. Length of the body 18 lines; expansion of the fore wings 58 lines.

a. North Hindostan. From Dr. Hooker's collection.

53. Conocephalus varius.

Mas et fœm. *Viridis, aut pallide testaceus, aut pallide ochraceus, subtiliter punctatus; fastigium longi-conicum, apice rotundatum, subtus subcarinatum; prothoracis carinæ laterales bene determinatæ; oviductus abdomine longior; pedes graciles, femoribus quatuor anterioribus subspinosis; alæ posticæ diaphanæ, viridi pallido venosæ.*

Male and female. Grass-green, or pale testaceous, or pale ochraceous. Head and prothorax minutely punctured, occasionally with a pale ochraceous stripe on each side. Fastigium elongate-conical, shorter than the hind part of the head, rounded in front, slightly keeled beneath, where it is angular at its base; front attenuated towards the fastigium. Mandibles occasionally rosy; their tips black. Prothorax with well-defined lateral keels and with two very slight transverse sutures; fore border straight; sides nearly straight; hind border slightly rounded. Prosternum with two long slender spines. Oviduct longer than the abdomen. Legs slender; four anterior femora with a few very minute spines; hind femora and four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows. Wings extending very much beyond the body. Fore wings somewhat longer than the hind wings; the latter pellucid, with pale green veins. Length of the body 17—18 lines; expansion of the fore wings 40—48 lines.

a—c. China. Presented by G. T. Lave, Esq.
d. China? Presented by Major Ger. Hardwicke.
e. Hong Kong. Presented by J. C. Bowring, Esq.
f. Silhet. From the Rev. J. Stainforth's collection.

54. Conocephalus incertus.

Mas. *Pallide viridis, testaceo varius, subtiliter punctatus; fastigium longi-conicum, apice subrotundatum; subtus subcarinatum; prothoracis carinæ laterales bene determinatæ; pedes graciles, femoribus quatuor anterioribus inermibus; alæ anticæ nigricante subpunctatæ; alæ posticæ diaphanæ; pallido venosæ.*

Male. Pale green, partly pale testaceous. Head and prothorax minutely punctured. Fastigium elongate-conical, rounded at the tip, shorter than the hind part of the head, with a slight keel beneath; front forming an acute angle next the fastigium. Mandibles with black tips. Prothorax with distinct lateral keels and with two very slight transverse furrows; fore border hardly excavated; sides nearly straight; hind border

slightly rounded. Prosternum with two long slender spines. Legs slender; four anterior femora without spines; hind femora and four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows. Wings extending much beyond the abdomen. Fore wings somewhat longer than the hind wings, with a few blackish points in the disk. Hind wings pellucid; veins green. Length of the body 15 lines; expansion of the fore wings 42 lines.

The fastigium is a little shorter than that of *C. varius*.

a. Ceylon.

55. Conocephalus femoralis.

Mas. *Testaceus, gracilis, dense punctatus, nigricante bivittatus; fastigium longi-conicum, apice rotundatum; oculi nigro bivittati; pedes graciles, femoribus quatuor anterioribus subspinosis, femoribus posticis fusco univittatis; alæ anticæ nigro guttatæ et punctatæ; alæ posticæ cinereæ, testaceo venosæ.*

Male. Testaceous, slender. Head and prothorax thickly and minutely punctured, with two indistinct blackish lines which extend along the well-defined lateral keels of the latter and with more indistinct intermediate lines. Fastigium elongate-conical, rounded on the fore border, shorter than the hinder part of the head, forming an acute angle at its base contiguous to the attenuated part of the front. Eyes with two black stripes. Prothorax with two very indistinct transverse furrows; fore border straight; sides nearly straight; hind border slightly rounded. Prosternum with two acute spines. Legs slender; four anterior femora with a few very minute spines; hind femora and four anterior tibiæ with two rows of minute spines, the former on the outer side with a short brown stripe which extends from the base; hind tibiæ with four rows. Wings extending very much beyond the abdomen. Fore wings with several black dots and points. Hind wings cinereous; veins testaceous. Length of the body 12 lines; expansion of the fore wings 42 lines.

The fastigium of this species is somewhat shorter than that of *C. incertus* and of *C. varius*.

a. China? Presented by Major-Gen. Hardwicke.

56. Conocephalus rosaceus.

Fœm. *Roseo-testaceus, gracilis, dense punctatus, fastigium lanceolatum, apice subrotundatum, subtus subcarinatum; oculi nigro univittati; prothoracis carinæ laterales bene determinatæ; oviductus abdomini æquilongus; pedes sat graciles, femoribus quatuor anterioribus inermibus; alæ posticæ diaphanæ, albo venosæ.*

Female. Testaceous, slender, tinged with rose-colour. Head and prothorax thickly and minutely punctured. Fastigium lanceolate, as long as the hinder part of the head, slightly rounded at the tip, slightly keeled beneath, where it is angular at its base; front attenuated towards the fastigium. Mandibles with black tips. Eyes with a black stripe. Prothorax with two well-defined lateral keels and with two very indistinct transverse furrows; fore border and sides nearly straight; hind border

slightly rounded. Prosternum with two long slender spines. Oviduct as long as the abdomen. Legs rather slender; four anterior femora unarmed; hind femora and four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows. Wings extending very much beyond the abdomen. Fore wings rather longer than the hind wings, which are pellucid and have white veins. Length of the body 20 lines; expansion of the fore wings 48 lines.

a. North China. From Mr. Fortune's collection.

57. Conocephalus spatulatus.

Fœm. *Testaceus, robustus, subtiliter punctatus; fastigium lanceolatum, subsulcatum, apice nigrum, subtus carinatum; oculi nigri; prothoracis carinæ laterales non bene determinatæ; prosterni spinæ breves; oviductus vix arcuatus, abdomine paullo brevior; pedes robusti, femoribus quatuor anterioribus subspinosis; alæ posticæ diaphanæ, pallido venosæ.*

Female. Testaceous, stout. Head and prothorax thickly and minutely punctured. Fastigium lanceolate, slightly furrowed, with slightly reflexed sides, black and acute at the tip, keeled beneath, where it is dentate at the base, a little shorter than the hinder part of the head; front slightly keeled towards the fastigium. Mandibles with black tips. Eyes black. Prothorax with two indistinct transverse furrows; lateral keels not well defined; fore border, hind border and sides nearly straight in the middle. Prosternum with two short spines. Abdomen pale testaceous. Oviduct very slightly curved, a little shorter than the abdomen. Legs stout; four anterior femora with four minute spines on the inner side and with one on the outer side; hind femora and four anterior tibiæ with two rows of spines; hind tibiæ with four rows. Wings extending very much beyond the abdomen. Fore wings rather longer than the hind wings, which are pellucid and have pale testaceous veins. Length of the body 18 lines; expansion of the fore wings 48 lines.

The fastigium of this species resembles that of *C. dorsalis*, but is more acute.

a. China. Presented by G. T. Laye, Esq.

58. Conocephalus concisus.

Fœm. *Testaceus, gracilis, subtiliter rugulosus; fastigium longi-conicum, apice subrotundatum subtus carinatum; mandibulæ nigræ; prothoracis carinæ laterales vix determinatæ; oviductus subarcuatus, abdomine brevior; pedes robusti, femoribus anticis biseriatim trispinosis, femoribus intermediis uniseriatim quinquespinosis; alæ posticæ diaphanæ, pallido venosæ.*

Female. Testaceous, slender. Head and prothorax minutely tuberculate or rugulose. Head much shorter than the prothorax; fastigium elongate-conical, slightly rounded at the tip, a little shorter and more tuberculate than the hinder part of the head, keeled beneath, where it is dentate at its base; front convex, slightly attenuated towards the fastigium; clypeus and labrum smooth. Mandibles black. Prothorax with two slight transverse furrows; fore border and hind border straight in the middle;

sides slightly rounded in the middle, more rounded at each end. Prosternum with two long slender spines. Oviduct slightly curved, rather shorter than the abdomen. Legs stout; fore femora with three spines on each side; middle femora with five spines on the outer side; hind femora with numerous spines on the outer side; four anterior tibiæ with two rows of spines; hind tibiæ with four rows. Wings extending much beyond the abdomen. Fore wings rather longer than the hind wings, which are pellucid and have pale testaceous veins. Length of the body 18 lines; expansion of the fore wings 40 lines.

a. China. Presented by G. T. Laye, Esq.

Australasia, Australia and Oceania.

59. Conocephalus veruger.

veruger, *Serv. Hist. Orth.* 520.

Java.

60. Conocephalus blandus.

blandus, *Serv. Hist. Orth.* 521.

Java.

The species described by Haan, by Le Guillou and by Montrouzier are not easily identified.

61. Conocephalus mucro.

Locusta (Conocephalus) mucro, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 212.

Java. Amboina. Padang.

62. Conocephalus planispina.

Locusta (Conocephalus) planispina, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 212.

Java.

63. Conocephalus turpis.

Mas et fœm. *Sordide testaceus, gracilis, subtiliter punctatus; caput prothorace multo brevius, fastigio longi-conico; prothoracis carinæ laterales bene determinatæ; pedes graciles, femoribus quatuor anterioribus inermibus; alæ anticæ fusco aut nigricante subpunctatæ; alæ posticæ diaphanæ, albo venosæ.*

Male and female. Dingy, testaceous, slender. Head and prothorax thickly and minutely punctured, with five brown stripes which are most distinct on the head, the outer pair much broader than the others. Head much shorter than the prothorax; fastigium elongate-conical, shorter than the hinder part, very slightly keeled beneath, where it is angular at the base. Prothorax with two well-defined lateral keels and with very slight transverse furrows; fore border straight; sides whitish, nearly straight in the middle; hind border slightly rounded. Prosternum with two long slender spines. Oviduct straight, as long as the abdomen. Legs slender; fore femora unarmed; middle femora with two very minute spines on the outer

side near the tip; the other parts as usual. Fore wings much longer than the body, with a few brown or blackish points in the disk, rather longer than the hind wings, which are pellucid and have white veins. Length of the body 15 lines; expansion of the fore wings 37—40 lines.

Allied to *C. veruger*, but differing from that species in colour and in markings.

a. Philippine Isles. From Mr. Cuming's collection.
b. ———?

64. Conocephalus alienus.

Mas. *Pallide viridis, gracilis, subtiliter punctatus, flavescente pallido bilineatus; caput prothorace brevius, fastigio lanceolato apice rotundato; pedes sat graciles, femoribus quatuor anterioribus inermibus.*

Male. Pale green, slender. Head and prothorax finely punctured, with two pale yellowish lines which extend along the slight lateral keels of the prothorax. Head rather shorter than the prothorax; fastigium lanceolate, as long as the hinder part of the head, rounded at the tip, angular at the base beneath, where it is contiguous to the angular part of the front. Prothorax with the fore border hardly excavated in the middle; sides straight in the middle; hind border slightly rounded. Prosternum with two long slender spines. Legs rather slender; four anterior femora unarmed; hind femora and four anterior tibiæ with two rows of spines; hind tibiæ with four rows. Wings shorter than the abdomen. Length of the body 12 lines.

The specimen described is apparently immature.

a. Java. From Mr. Argent's collection.

65. Conocephalus clarus.

Fœm. *Testaceus, gracilis, dense punctatus; caput prothorace valde brevius, fastigio conico apice lato subtus nigro-fasciato; mandibulæ pallide roseæ; prothoracis carinæ laterales bene determinatæ; oviductus rectus, corpore vix brevior; pedes graciles, femoribus quatuor anterioribus inermibus; alæ posticæ diaphanæ, albo venosæ.*

Female. Testaceous, slender. Head and prothorax thickly punctured. Head very much shorter than the prothorax; fastigium conical, much shorter than the hinder part of the head, broad and rounded at the tip, convex beneath, where it has a broad arched black band and is obtusely angular at its base; front attenuated towards the fastigium. Mandibles pale rose-colour. Prothorax with two very slight transverse furrows and with well-defined lateral keels; fore border straight in the middle; sides slightly angular; hind border slightly rounded. Prosternum with two long slender spines. Oviduct straight, nearly as long as the body. Legs slender; four anterior femora without spines. Fore wings very much longer than the body, a little longer than the hind wings, which are pellucid and have white veins. Length of the body 15 lines; expansion of the fore wings 46 lines.

a. Sumatra. From Sir Stamford Raffles' collection.

66. Conocephalus Troudeti.

Troudeti, *Le Guillou*, *Rev. Zool.* 1841, 293.

New Guinea. North Australia.

67. Conocephalus Roberti.

Roberti, *Le Guillou*, *Rev. Zool.* 1841, 293.

Hamoa. Hassai.

68. Conocephalus Cristovallensis.

Cristovallensis, *Mtrz. Ann. Soc. Agric. Lyons.* 1857, vii. 87.

Woodlark.

69. Conocephalus Thunbergii.

Thunbergii, *Mtrz. Ann. Soc. Agric. Lyons*, 1857, vii. 87.

Woodlark.

70. Conocephalus insularis.

Mas. *Testaceus, gracilis, dense et subtiliter punctatus, flavescente et fuscescente bivittatus; caput prothorace multo brevius, fastigio lanceolato subascendente apice obtuso subtus subcarinato; prothoracis carinæ laterales bene determinatæ; pedes graciles, femoribus anticis inermibus intermediis apicem versus bispinosis; alæ anticæ nigricante subpunctatæ; alæ posticæ diaphanæ, albo venosæ.* Var.?—*Pallide viridis; alæ anticæ non punctatæ.*

Male and female. Testaceous, slender. Head and prothorax thickly and minutely punctured, with two pale yellowish stripes which are diffusedly bordered on the outer side with pale brown. Head very much shorter than the prothorax; fastigium lanceolate, obtuse at the tip, a little longer than the hinder part of the head, slightly keeled beneath, where it forms an acute angle at its base. Prothorax with two very slight transverse furrows and with two well-defined lateral keels; fore border straight in the middle; sides nearly straight in the middle; hind border slightly rounded. Prosternum with two long slender spines. Oviduct straight, a little longer than the abdomen. Legs slender; fore femora unarmed; middle femora with two minute spines on the outer side near the tips; the other parts as usual. Wings very much longer than the body. Fore wings with a few blackish points, rather longer than the hind wings, which are pellucid and have white veins. *Var.?*—Pale green. Fore wings without points. Length of the body 13—15 lines; expansion of the fore wings 40—44 lines.

a. Navigator's Isle. Presented by the late Duke of Northumberland.
b—j. Sandwich Islands. Presented by Capt. Beechey.
k. ——— ? Presented by Sir J. Liddell.

71. Conocephalus remotus.

Mas et fœm. *Viridis, dense et subtiliter punctatus; caput prothorace valde brevius, fastigio conico; oviductus rectus, abdomine paullo longior; pedes graciles, femoribus anticis inermibus, femoribus intermediis nonnunquam bispinosis; alæ anticæ nigro subpunctatæ; alæ posticæ diaphanæ, albo venosæ.*

Male and female. Grass-green. Head and prothorax thickly and minutely punctured. Head very much shorter than the prothorax; fastigium conical, less than half the length of the hinder part of the head, rounded beneath at the base, where it approaches the dentate border of the front. Prothorax with two more or less distinct yellowish stripes on the well-defined lateral keels; fore border, hind border and sides nearly straight in the middle. Prosternum with two long slender spines. Oviduct straight, a little longer than the abdomen. Legs slender; four anterior femora unarmed or with two minute spines near the tips of the middle femora; the other parts as usual. Fore wings much longer than the body, a little longer than the hind wings, occasionally with a few black points. Hind wings pellucid; veins white. Length of the body 12—13 lines; expansion of the fore wings 33—36 lines.

a—c. Sandwich Isles. Presented by Capt. Beechey.
d. ———?

Country unknown.

72. Conocephalus acanthocerus.

acanthocerus, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 212.

73. Conocephalus nobilis.

Fœm. *Viridis, dense punctatus; caput prothorace brevius, fastigio longi-conico, fronte linea inter oculos transversa fusca, margine antico nigro; mandibulæ nigræ; abdomen fuscescens; oviductus testaceus, subarcuatus, abdomine paullo longior; pedes robusti, femoribus anterioribus spinosis; alæ posticæ diaphanæ, albo venosæ.*

Female. Pale green, stout, testaceous beneath. Head and prothorax thickly punctured. Head somewhat shorter than the prothorax; fastigium elongate-conical, shorter than the hinder part of the head, obtusely angular beneath at its base; front with a brown transverse line between the eyes and with a black band on the fore border; labrum mostly piceous. Mandibles black. Prothorax with a slight transverse furrow; fore border, sides and hind border nearly straight in the middle. Prosternum with two long slender spines; mesosternum with two elongate-conical lobes; metasternum with two triangular lobes. Abdomen brownish. Oviduct testaceous, slightly curved, a little longer than the abdomen. Legs stout; fore femora with three minute spines on the inner side and with two on the outer side; middle femora with three or four on the outer side; the other parts as usual. Fore wings much longer than the body, a little longer than the hind wings, which are pellucid and have white veins. Length of the body 22 lines; expansion of the fore wings 64 lines.

a. ———?

74. Conocephalus vittipennis.

Fœm. *Testaceus, gracilis, dense punctatus, vittis duabus pallidis fusco diffuse marginatis; caput pallido quinquelineatum, prothorace valde brevius, fastigio brevi-conico subtus nigro triangulari, gutta frontali pallide flava; oviductus rectus, abdomine longior; pedes graciles, femoribus subtus piceis; alæ anticæ nigro guttatæ et punctatæ; alæ posticæ diaphanæ, albo venosæ.*

Female. Testaceous, slender. Head and prothorax thickly punctured, with two paler stripes which are diffusedly bordered with brown on the outer side and occupy the well-defined lateral keels of the prothorax. Head with three more pale longitudinal lines, very much shorter than the prothorax; fastigium short-conical, much shorter than the hinder part of the head, broad and much rounded in front, black and triangular beneath, front with an elliptical pale yellow dot which is contiguous to the fastigium. Prothorax with two slight transverse furrows, the hinder one especially indistinct; fore border and sides almost straight in the middle; hind border slightly rounded. Prosternum with two long slender spines. Mesosternum and metasternum with piceous disks. Oviduct straight, rather longer than the abdomen. Legs slender; femora piceous beneath; four anterior femora unarmed. Fore wings much longer than the body, rather longer than the hind wings, with some black dots and points. Hind wings pellucid; veins white. Length of the body 13 lines; expansion of the fore wings 36 lines.

Like *C. abbreviatus* in the shape of the fastigium.

a. ———?

75. Conocephalus abbreviatus.

Fœm. *Pallide viridis, gracilis, subtiliter punctatus; fastigium breviconicum, apice latum, subtus triangulare nigro fasciatum; oculi nigro univittati; prothorax capite plus duplo longior; oviductus rectus, abdomine longior; pedes graciles, femoribus quatuor anterioribus subspinosis; alæ posticæ diaphanæ, albo venosæ.*

Female. Pale green, slender. Head and prothorax minutely punctured. Head about half the length of the prothorax; fastigium short-conical, very broad and much rounded in front, much shorter than the hinder part of the head, triangular beneath, where it has a slender abbreviated black band. Eyes testaceous, with a black stripe. Prothorax with two very slight transverse furrows; fore border and sides almost straight in the middle; hind border slightly rounded. Prosternum with two long slender spines. Oviduct straight, rather longer than the abdomen. Legs slender; four anterior femora with a few very minute spines; the other parts as usual. Fore wings very much longer than the body, a little longer than the hind wings, which are pellucid and have white veins. Length of the body 15 lines; expansion of the fore wings 50 lines.

The fastigium is somewhat broader than that of *C. remotus*.

a. ———?

76. Conocephalus intactus.

Fœm. *Viridis, dense et subtiliter punctatus; caput prothorace multo brevius, fastigio conico apice lato, labro antice ferrugineo; oviductus rectus, abdomine multo longior; pedes graciles, femoribus quatuor anterioribus inermibus; alæ posticæ diaphanæ, albo venosæ.*

Female. Grass-green. Head and prothorax thickly and minutely punctured. Head much shorter than the prothorax; fastigium conical, broad and rounded at the tip, nearly half the length of the hinder part of the head, obtusely angular at the base beneath, where it is contiguous to the acute part of the front; labrum ferruginous towards the tip. Mandibles with piceous tips. Prothorax with the usual structure; two indistinct transverse furrows. Prosternum with two long slender spines. Oviduct straight, much longer than the abdomen. Legs slender; four anterior femora unarmed; the other parts as usual. Fore wings much longer than the body, a little longer than the hind wings. Hind wings pellucid; veins white, green towards the costa. Length of the body 16 lines; expansion of the fore wings 48 lines.

The fastigium is rather longer than that of *C. remotus*.

a. ———?

77. Conocephalus latipennis.

Mas. *Viridis, sat robustus, dense punctatus; fastigium conicum, flavo marginatum, subtus triangulare; labrum apice piceum; mandibulæ pallide ochraceæ, apice nigræ; prothorax flavescente bivittatus, capite plus duplo longior; pedes sat validi, femoribus quatuor anterioribus inermibus, tibiis anticis basi nigro vittatis, tarsis subtus nigricantibus; alæ anticæ nigricante punctatæ, basi dilatatæ; alæ posticæ diaphanæ, albo venosæ.*

Male. Grass-green, rather stout. Head and prothorax thickly punctured. Head less than half the length of the prothorax; fastigium conical, about half the length of the hinder part of the head, with a yellow stripe on each side, triangular beneath, where it is contiguous to the dentate border of the front; labrum piceous towards the tip. Mandibles pale ochraceous, with black tips. Prothorax with two yellowish stripes along the lateral keels; fore border nearly straight; sides angular in the middle; hind border rounded. Prosternum with two long slender spines. Legs rather stout; four anterior femora unarmed; fore tibiæ striped with black above at the base; tarsi blackish beneath; the other parts as usual. Fore wings very much longer than the body, somewhat longer than the hind wings, dilated near the base, with some blackish points in the disk; tympanum of the right wing pellucid, that of the left wing with a blackish disk. Hind wings pellucid; veins white, green towards the costa. Length of the body 15 lines; expansion of the fore wings 47 lines.

The prothorax of this species is much broader than that of *C. remotus*, which it resembles in the structure of the fastigium.

a. ———?

78. Conocephalus restrictus.

Fœm. *Viridis, gracilis, dense et subtiliter punctatus; caput prothorace multo brevius, flavescente quadrilineatum, fastigio longi-conico; mandibulæ pallide carneæ, apice nigræ; oculi nigro univittati; oviductus rectus, abdomine multo longior; pedes graciles, femoribus anticis inermibus, femoribus intermediis bispinosis; alæ posticæ diaphanæ, viridescente venosæ.*

Female. Grass-green, slender. Head and prothorax thickly and minutely punctured, with two pale yellowish stripes. Head much shorter than the prothorax, with an oblique yellowish line on each side, extending from the eye to the hind border; fastigium elongate-conical, rather shorter than the hinder part of the head, angular at the base beneath, where the front is dentate. Mandibles pale flesh-colour, with black tips. Eyes with a black stripe. Prothorax with two very slight transverse furrows and with well-defined lateral keels; fore border and sides straight in the middle; hind border curved. Oviduct straight, much longer than the abdomen. Legs slender; fore femora unarmed; middle femora with three very minute spines on the outer side; the other parts as usual. Fore wings much longer than the body, a little longer than the hind wings, which are pellucid and have pale green veins. Length of the body 14 lines; expansion of the fore wings 38 lines.

The fastigium is a little longer and more slender than that of *C. intactus* and a little shorter than that of *C. insularis*.

a. ———?

79. Conocephalus extensor.

Fœm. *Viridis, gracilis, subtiliter punctatus; caput prothorace brevius, fastigio lanceolato subtiliter ruguloso subtus subcarinato; oviductus rectus, abdomine paullo longior; pedes graciles, femoribus quatuor anterioribus inermibus; alæ posticæ diaphanæ, albo venosæ.*

Female. Pale green, slender. Head and prothorax minutely punctured. Head rather shorter than the prothorax; fastigium lanceolate, finely rugulose, as long as the hinder part of the head, slightly keeled beneath, where it is obtusely angular at the base; front with two slight approximate longitudinal furrows. Mandibles piceous at the tips. Prothorax with two slight transverse furrows; fore border, sides and hind border nearly straight in the middle. Prosternum with two long slender spines. Oviduct straight, a little longer than the abdomen. Legs slender; four anterior femora without spines. Wings much longer than the body. Fore wings a little longer than the hind wings, which are pellucid and have white veins. Length of the body 18 lines; expansion of the fore wings 42 lines.

The fastigium is longer and more acute than that of *C. insularis*.

a. ———?

Genus 81. BUCRATES.

Bucrates, *Burm. Handb. Ent.* ii. 708.

1. Bucrates capitatus.

Locusta capitata, *Deg. Ins.* iii. 455, pl. 40, f. 1—Bucrates capitatus, *Burm. Handb. Ent.* ii. 709.

Brazil?

Genus 82. PSEUDORHYNCHUS.

Conocephalus, *Serv. Rev.* 51—Pseudorhynchus, *Serv. Hist. Orth.* 509.

1. Pseudorhynchus sicarius.

Locusta lanceolata? *Fabr. Ent. Syst.* ii. 39—Pseudorhynchus sicarius, *Serv. Hist. Orth.* 510.

Sierra Leone?

2. Pseudorhynchus flavescens.

Conocephalus flavescens, *Serv. Rev.* 51—Pseudorhynchus flavescens, *Serv. Hist. Orth.* 511.

Java.

3. Pseudorhynchus Lessonii.

Lessonii, *Serv. Hist. Orth.* 511.

Java.

4. Pseudorhynchus? colorificus.

Fœm. *Viridis, robustus, nigro bivittatus, dense et subtiliter punctatus; caput prothorace paullo brevius, fastigio lanceolato apice obtuso subtus ferrugineo basi dentato, fronte flavo uniguttata, mandibulæ rufescentes, apice nigræ; antennæ nigro annulatæ; oviductus abdomine paullo longior; pedes validi, nigro spinosi, femoribus sex spinosis fusco notatis; alæ anticæ fusco nigroque punctatæ; alæ posticæ diaphanæ.*

Female. Grass-green, stout. Head and prothorax thickly and minutely punctured, with two black stripes which are irregular on the outer side. Head a little shorter than the prothorax; fastigium lanceolate, obtuse, rather shorter than the hinder part, ferruginous and much rounded beneath, where it is prominently dentate at its base; front and clypeus testaceous, the former with a yellow dot on its dentate fore border. Mandibles reddish, with black tips. Antennæ with many black rings. Prothorax with two very slight transverse furrows and with well-defined lateral keels; fore border, hind border and sides straight in the middle. Mesosternum and metasternum with nearly triangular lobes. Oviduct testaceous, straight, a little longer than the abdomen. Legs testaceous, stout; spines black or with black tips; femora mottled with brown on the outer side; fore femora with two or three spines; middle femora with four spines on the outer side; the other parts as usual. Fore wings testaceous, a little longer than the body and than the hind wings, with numereous brown points and with some black dots aud points. Hind wings pellucid; veins pale testaceous. Length of the body 26 lines; expansion of the fore wings 60 lines.

This species may belong to the genus *Conocephalus*, but spines on the prosternum cannot be discovered without injuring the specimen.

a. Brazil. From Mr. Vigors' collection.

5. Pseudorhynchus? pauperculus.

Fœm. *Testaceus, gracilis, dense et subtiliter punctatus; caput prothorace multo brevius, fastigio lanceolato subtus carinato; sternum breve, latum; oviductus vix arcuatus, abdomine paullo longior; pedes breves, sat graciles, femoribus quatuor anterioribus inermibus.*

Female. Testaceous, slender. Head and prothorax thickly and minutely punctured. Head much shorter than the prothorax; fastigium lanceolate, acute, as long as the hinder part of the head, keeled beneath; front not dentate between the eyes. Prothorax with two very slight transverse furrows; lateral keels not well defined; fore border slightly rounded; sides and hind border straight in the middle. Lobes of the sternum short, broad. Oviduct very slightly curved, a little longer than the abdomen. Legs short, rather slender; spines very minute; four anterior femora unarmed. Wings rudimentary. Length of the body 11½ lines.

The specimen described is not fully developed.

a. Australia. Presented by the Haslar Hospital.

Genus 83. COPIOPHORA.

Copiphora, *Serv. Rev.* 50; *Hist. Orth.* 512—Copiophora, *Burm. Handb. Ent.* ii. 702.

1. Copiophora longicauda.

Copiphora longicauda, *Stoll, Saut et Grill.* pl. 13, f. 51; *Serv. Rev.* 50; *Hist. Orth.* 513—Copiophora longicauda, *Burm. Handb. Ent.* ii. 703.

Cayenne.

2. Copiophora cornuta.

Locusta cornuta, *Deg. Ins.* iii. 37, f. 7. *Stoll, Saut et Grill.* pl. 17, f. 65—Copiphora cornuta, *Serv. Hist. Orth.* 514, pl. 10, f. 3. *Charp. Orth. Fasc.* 8—Copiophora cornuta, *Burm. Handb. Ent.* ii. 703.

a. Archidona. From Mr. Stevens' collection.
b. Para. From Mr. Wallace's collection.
c, d. ———?

3. Copiophora Mexicana.

Mexicana, *Sauss. Rev. Zool.* 1859, 207.

Mexico.

4. Copiophora megacephala.

megacephala, *Burm. Handb. Ent.* ii. 703.

Isle St. Johanna, near Mozambique.

5. Copiophora lancifera.

lancifera, *Burm. Handb. Ent.* ii. 703.

Bahia.

6. Copiophora gracilis.

gracilis, *Scud.*

Napo or Maranon.

7. Copiophora? flavoscripta.

Fœm. *Viridis, robustus, dense punctatus; caput prothorace brevius, fastigio lanceolato, oblique ascendente, fronte flavo-marginata; labro antice ferrugineo; sternum breve, latum; oviductus vix arcuatus, abdomine longior; pedes breves, validi, spinis crassis armati; alæ anticæ flavo lituratæ; alæ posticæ diaphanæ, albo venosæ.*

Female. Grass-green, stout. Head and prothorax thickly punctured. Head shorter than the prothorax; fastigium lanceolate, acute, obliquely ascending, longer than the hinder part of the head, forming beneath an oblique plane with the front, which has a yellow line along each side; labrum ferruginous about the fore border. Prothorax with two very slight transverse furrows; fore border and sides nearly straight; hind border slightly rounded in the middle. Sternum short, broad. Oviduct tawny towards the tip, very slightly curved, rather longer than the abdomen. Legs short, stout; femora and tibiæ armed with thick spines. Wings longer than the body. Fore wings with several short yellow lines on the veins. Hind wings pellucid, nearly as long as the fore wings; veins white. Length of the body 11 lines; expansion of the fore wings 27 lines.

a. Venezuela. From Mr. Dyson's collection.

8. Copiophora? cuspidata.

Locusta (Conocephalus) cuspidata, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 212.

Brazil.

Genus 84. PANACANTHUS.

Mas. Corpus robustum, nitens, aspere punctatum. Caput prothorace paullo angustius, cornu lanceolato spinoso oblique ascendente supra serrato inter oculos armatum; frons glabra, plana, obliqua. Oculi valde prominuli. Palporum articulus 1us brevis; 2us et 3us æquales; 4us 3o longior. Antennæ longæ, graciles; articulus 1us maximus; 2us sat validus. Prothorax spinosus. Abdomen apice quadricorniculatum; cornicula superiora crassa, arcuata; inferiora lanceolata, biarticulata. Pedes robusti, pilosi; femoribus tibiisque conferte spinosis. Alæ anticæ abdomen paullo superantes, aspere punctatæ, inordinatim reticulatæ.

Male. Body stout, shining. Head and prothorax roughly punctured. Head a little narrower than the prothorax, armed between the eyes with a lanceolate obliquely ascending horn that is serrated above from the base to

half the length, where it has four short stout spines; front smooth, flat, oblique. Eyes very prominent. First joint of the maxillary palpi short; second and third about equal in length; fourth rather longer than the third. Third joint of the labial palpi obliquely truncated. Antennæ slender, much more than twice the length of the body; first joint very large; second rather stout. Prothorax with some stout erect spines of various length in the disk and with a broad transverse furrow near the hind border. Sternum with short broad lobes. Abdomen with two upper thick curved and with two lower lanceolate biarticulate apical appendages. Legs stout, pilose; femora and tibiæ armed with numerous thick spines. Wings of equal length, extending a little beyond the abdomen. Fore wings roughly punctured, irregularly reticulated.

1. PANACANTHUS VARIUS.

Mas. *Viridis; caput nigricante varium, nigro bivittatum, cornu flavo basi nigro, facie rufescente; antennæ nigræ, articulo 3o viridi; prothorax niger, vittis duabus interruptis spinisque viridibus, margine postico fulvo; abdomen nigricans, viridi punctatum; alæ anticæ nigricantes, albido venosæ; alæ posticæ cinereæ.*

Male. Green. Head above partly blackish and with two black stripes which diverge from each other hindward; horn pale yellow, black above and beneath at the base; face reddish. Eyes pale yellow. Antennæ black, setulose towards the base; third joint green. Prothorax black; spines green; an irregular interrupted green stripe on each side emitting an oblique streak to the disk; hind border tawny. Abdomen blackish, with numerous green points. Fore wings blackish; veins whitish. Hind wings cinereous. Length of the body 15 lines; expansion of the fore wings 27 lines.

a. Quito. Presented by W. Hewitson, Esq.

Genus 85. STORNIZA.

Fœm. Corpus sat gracile, fere cylindricum. Caput et prothorax aspere punctata, subrugulosa. Caput cornu lanceolato oblique ascendente subtus brevicarinato; frons obliqua plana. Oculi prominuli. Palpi graciles; articulus 4us 3o longior. Antennæ graciles, longæ. Prothorax sellatus, marginibus antico et postico rectis.

Female. Body rather slender, nearly cylindrical. Head and prothorax roughly punctured, slightly rugulose. Head as broad as the prothorax, armed between the eyes with a long lanceolate very acute obliquely ascending horn, which has a deep short keel beneath; front oblique, flat. Eyes prominent. Palpi slender, truncated obliquely at the tips; fourth joint of the maxillary longer than the second and than the third. Antennæ slender, very much longer than the body; first joint long, very stout; second stout, about half the length of the first; third long, slender; the following joints short. Prothorax saddle-shaped, with a much rounded angle on each side; fore border and hind border straight.

This genus is nearly allied to the preceding one. The specimen characterized has probably not attained its full development, and in that case the description is incomplete.

1. Storniza pallicornis.

Fœm. *Pallide viridis; caput spinosum, cornu spinoso apice lutescente, labro mandibulisque pallide luteis; abdomen prothorace valde gracilius vix longius; oviductus rectus, abdomine longior.*

Female. Pale green. Head as broad as the prothorax, armed with some stout spines on each side; the horn with several stout spines near its base and two pale luteous spines near its tip, which is also pale luteous; labrum and mandibles pale luteous. Eyes tawny. Abdomen tapering, much more slender and hardly longer than the prothorax. Oviduct straight, rather longer than the abdomen. Spines of the legs mostly luteous towards the tips, of which a few are brown. Wings rudimentary. Length of the body 10 lines.

a. Bogota. From Mr. Stevens' collection.

Genus 86. MEGALODON.

Megalodon, *Brullé, Hist. Nat. Ins.* ix. 157, pl. 14, f. 1—*Serv. Hist. Orth.* 536. *Burm. Handb. Ent.* ii. 724. *Blanch. Hist. Nat. Ins.* iii. 28.

1. Megalodon ensifer.

ensifer, *Brullé, Hist. Nat. Ins.* ix. 157, pl. 15, f. 4. *Serv. Hist. Orth.* 537. *Burm. Handb. Ent.* ii. 724. *Charp. Orth.* pl. 9. *Blanch. Hist. Nat. Ins.* iii. 28. *Westw. Orient. Ent.* pl. 16, f. 2.

a. Hindostan. Presented by the Entomological Club.

Genus 87. ACANTHACARA.

Acanthacara, *Scud.*

1. Acanthacara acuta.

acuta, *Scud.*

Between Quito and Napo.

The *Phaneropteridæ* commence with the following genus.

Genus 88. PHANEROPTERA.

Locusta, *Fabr. &c.*—Phaneroptera, *Serv. Rev.; Hist. Orth.* 413. *Brullé, Burm. Handb. Ent.* ii. 688. *Charp. Fisch. de W. Fisch. Orth. Eur.* 236.

Europe.

1. Phaneroptera Dalmatina.

——— *Savigny, Descr. Egypt. Orth.* pl. 4, f. 8, 10—*Zinnani, Osserv. Giorn.* 32, pl. 7, f. 12—Phaneroptera Dalmatina, *Serv. Hist. Orth.* 415—Macropoda, *Burm. Handb. Ent.* ii. 689; *Germ. Zeitsch.* ii. 62. *Charp. Orth.* pl. 19, 20. *Fisch. Orth. Eur.* 237—Servillea, *Brullé, Exp. Sci. Mor. Zool.* 86, pl. 30, f. 1.

Dalmatia. Sicily. Greece. Egypt.

2. PHANEROPTERA LIBIFOLIA.

Locusta libifolia, *Fabr. Ent. Syst.* ii. 36. *Latr. Hist. Nat.* xii. 131; *Gen.* iii. 101. *Charp. Hor. Ent.* 105—Phaneroptera libifolia, *Serv. Hist. Orth.* 421. *Burm. Handb. Ent.* ii. 689. *Fisch. de Waldh. Orth. Ross.* 141, pl. 8, f. 1, 2. *Brullé, Hist. Nat.* ix. 144, pl. 13, f. 3. *Fisch. Orth. Eur.* 237—*Var.* Locusta gracilis, *Germ. Iter. Dalm.* 251. *Ahrens, Germ. Faun. Ins. Eur.* 8, pl. 15. *Charp. Hor. Ent.* 105—Locusta thymifolia, *Rossi, Fauna Etr. Mant.* ii. 104—Phaneroptera margineguttata, *Serv. Hist. Orth.* 422.

a. Italy.

3. PHANEROPTERA FALCATA.

———, *De Vill. Ent. Linn.* i. 441. *Schæff. Icon.* pl. 138, f. 1—3—Gryllus falcatus, *Scop. Ent. Carn.* 108—Locusta falcata, *Schrank, Faun. Boic.* ii. 35. *Petagna, Inst. Ent.* i. 315. *Rossi, Faun. Etr.* i. 168. *Charp. Horæ, Ent.* 103—Locusta lilifolia, *Serv. Rev.* 61. *Brullé, Hist. Nat. Ins.* ix. 144, pl. 13, f. 3—Phaneroptera falcata, *Serv. Hist. Orth.* 419. *Burm. Handb. Ent.* ii. 690. *Fisch. de W. Orth. Ross.* 140. *Fisch. Orth. Eur.* 238, pl. 12, f. 21—23—Locusta (Phaneroptera) falcata, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 193.

a. France. From Prof. Westwood's collection.
b, c. Polish Ukraine. Presented by Dr. Dowler.
d—h. Madeira. From Mr. Wollaston's collection.
i. Madeira. Presented by Mrs. Hope.

North America.

4. PHANEROPTERA CURVICAUDA.

Locusta curvicauda, *Deg. Ins.* iii. 446, pl. 38, f. 3—Gryllus (Locusta) myrtifolius, *Drury, Ins.* ii. 78, pl. 41, f. 2—Gryllus (Phylloptera) myrtifolius, *Drury, Ins. Ed. Westw.* ii. 70, pl. 41, f. 2—Pterophylla curvicauda, *Harr. Cat. Ins. Mass.* 56—Phaneroptera curvicauda, *Serv. Ann. Sci. Nat.* xxii. 159. *Burm. Handb. Ent.* ii. 691. *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 448—Phaneroptera angustifolia, *Harr. Rep. 3rd. Ed.* 160, f. 76—Phaneroptera septentrionalis, *Serv. Hist. Orth.* 416.

a, b. United States. Presented by W. Kirby, Esq.
c—g. United States. Presented by F. Walker, Esq.
h. Nova Scotia. From Lieut. Redman's collection.
i. ———?

Mexico.

5. PHANEROPTERA TOLTECA.

Tolteca, *Sauss. Rev. Zool.* 1859, 201.

Mexico.

6. PHANEROPTERA MEXICANA.

Mexicana, *Sauss. Rev. Zool.* 1861, 129.

a—*c*. Oajaca. From M. Sallé's collection.

South America.

7. PHANEROPTERA PALLENS.

Locusta pallens, *Fabr. Ent. Syst.* ii. 39—Locusta myrtifolia, *Drury, Ins.* ii. pl. 41, f. 2—Locusta virgo? *Stoll, Saut. et Grill.* 21, pl. 9, f. 35—Phaneroptera pallens, *Burm. Handb. Ent.* ii. 691.

Brazil.

8. PHANEROPTERA RECTANGULA.

rectangula, *Burm. Handb. Ent.* ii. 691.

Bahia.

a. Santarem. From Mr. Bates' collection.

9. PHANEROPTERA CURTA.

curta, *Serv. Hist. Orth.* 417.

Buenos Ayres.

10. PHANEROPTERA CRUENTA.

cruenta, *Burm. Handb. Ent.* ii. 691.

Rio Janeiro.

11. PHANEROPTERA MACULOSA.

maculosa, *Burm. Handb, Ent.* ii. 691.

Bahia.

12. PHANEROPTERA ALBIDICOLLIS.

albidicollis, *Blanch. Gay, Chili*, pl. 6.

Chili.

13. PHANEROPTERA SUBMACULATA.

submaculata, *Stal. Eug. Resa*, 320.

Rio Janeiro.

14. PHANEROPTERA MELANOCNEMIS.

melanocnemis, *Stal. Eug. Resa*, 321.

Buenos Ayres.

Africa.

15. PHANEROPTERA FAUSTA.

———? *Savigny, Descr. Egypte, Orth.* pl. 4, f. 5—Phaneroptera fausta, *Mas. Burl. Mus. Burm. Handb. Ent.* ii. 689.

Nubia.

16. PHANEROPTERA BILINEOLATA.

bilineolata, *Serv. Hist. Orth.* 419.

a. South Africa. Presented by Sir A. Smith.
b. Natal. From M. Gueinzius' collection.

17. PHANEROPTERA AMPLECTENS.

amplectens, *Schaum, Monats. Berl. Acad.* 1853, 777.

Mozambique.

18. PHANEROPTERA GRALLATORIA.

grallatoria, *Stal, Ofv. K. V. Ak. Forh.* 1856, 170.

Natal.

19. PHANEROPTERA SPARSA.

sparsa, *Stal. Ofv. K. V. Ah. Forh.* 1856, 170.

Natal.

20. PHANEROPTERA CONTINUA.

Mas. *Viridis aut testacea, gracilis; vertex fuscus; oculi fusiformes, non prominuli; mandibulæ apice nigræ; prothorax disco fusco, carinis lateralibus bene determinatis; abdominis dorsum carinatum; cerci cylindrici, valde arcuati; cornicula duo infera lanceolata, subarcuata; pedes graciles, femoribus inermibus, tibiis posticis subtus fuscis; alæ anticæ angustæ, basi postice ferrugineæ; alæ posticæ diaphanæ, apice viridi strigatæ.* Fœm.—*Oviductus abdominis dimidio longior.*

Male. Green or testaceous, slender. Head as broad as the prothorax; vertex brown; front long, slightly oblique. Eyes fusiform, not prominent. Mandibles with black tips. Third joint of the maxillary palpi much longer than the fourth, much shorter than the fifth, which is subclavate. Antennæ slender, much longer than the body. Prothorax elongate; disk brown, flat, slightly broader in front; sides straight, whitish; lateral keels well defined; fore border straight; hind border slightly rounded. Sternum hardly excavated. Abdomen keeled above. Cerci cylindrical, much curved. Lower appendages lanceolate, slightly curved. Legs long, slender; femora unarmed; hind femora slightly dilated for half the length from the base; four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows, brown beneath; fore tibiæ slightly dilated at the base. Fore wings narrow, shorter by three lines than the hind wings, ferruginous between the anal vein and the hind border; reticulation irregular. Hind wings pellucid; veins white; a broad green streak along the apical part of the costa. *Female.*—Oviduct deep, curved, slightly keeled on each side, more than half the length of the abdomen. Length of the body 7—8 lines; expansion of the fore wings 25—27 lines.

a—c. South Africa. Presented by Sir A. Smith.
d, e. Natal. From M. Gueinzius' collection.

21. Phaneroptera attenuata.

Viridis, gracillima; oculi testacei, fusiformes, non prominuli; prothorax carinis lateralibus sat bene determinatis; pedes graciles, femoribus inermibus; alæ anticæ angustæ, venis apud costam albis; alæ posticæ diaphanæ, apice ferrugineæ, apud costæ apicem viridi strigatæ.

Green, smooth, very slender. Head as broad as the prothorax, with a short keel between the eyes; front slightly oblique. Eyes fusiform, testaceous, not prominent. Third joint of the maxillary palpi longer than the fourth, shorter than the fifth, which is subclavate. Antennæ long, slender. Prothorax elongate; disk flat, slightly widening hindward; fore border straight; hind border slightly rounded; lateral keels moderately well defined; sides almost straight. Legs long, slender; femora unarmed; hind femora slightly incrassated for half the length from the base; four anterior tibiæ with two rows of very minute spines; hind tibiæ with four rows. Fore wings narrow, shorter by four and a half lines than the hind wings; veins along the costa and scapular vein white. Hind wings pellucid, green along the costa towards the tip, which is ferruginous; veins pale green. Length of the body 7½ lines; expansion of the fore wings 28 lines.

a. South Africa. Presented by Sir A. Smith.

22. Phaneroptera vicaria.

Mas. *Viridis, gracilis, testaceo varia; oculi testacei, fusiformes, fusco lineati, non prominuli; prothorax carinis lateralibus bene determinatis; abdominis dorsum carinatum; cerci cylindrici, valde arcuati; cornicula duo infera lanceolata, subarcuata; pedes graciles, femoribus inermibus; alæ anticæ angustæ, margine postico basi fusco; alæ posticæ diaphanæ, apud costæ apicem viridi strigatæ.*

Male. Green, partly testaceous, slender, smooth, shining. Head as broad as the prothorax, with a forked keel between the eyes; front erect. Eyes testaceous, fusiform, not prominent, with several longitudinal brown lines. Prothorax elongate; disk flat, slightly contracted in the middle; lateral keels well defined; fore border hardly excavated; sides and hind border slightly rounded. Abdomen keeled, as long as the thorax. Cerci cylindrical, much curved; lower appendages lanceolate, slightly curved upward. Legs long, slender; femora unarmed; hind femora slightly incrassated for half the length from the base; four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows. Fore wings green, narrow, brown between the anal vein and the hind border, shorter by two and a half lines than the hind wings; areolets irregular, very numerous and very small. Hind wings broad, pellucid, with the usual green streak along the apical part of the costa; veins white. Length of the body 8 lines; expansion of the fore wings 30 lines.

a. Natal. From M. Gueinzius' collection.

23. Phaneroptera lurida.

Mas. *Sordide ochracea, gracilis; oculi rotundi, prominuli; prothoracis carinæ laterales vix determinatæ; cerci lanceolati, graciles, valde arcuati; cornicula duo infera valida, lanceolata, subarcuata; pedes graciles, femoribus inermibus; alæ anticæ angustæ; alæ posticæ albæ, apud costæ apicem ochraceo strigatæ.*

Male. Dull ochraceous, smooth, slender. Head nearly as broad as the prothorax, with a short slight keel between the eyes; front erect. Eyes round, prominent. Palpi with the usual structure. Antennæ long, slender. Prothorax with a flat disk; lateral keels hardly defined; fore border hardly excavated; sides and hind border rounded, the latter deeply notched on each side. Sternum slightly excavated in each segment. Cerci lanceolate, slender, much curved; inferior appendages stout, lanceolate, slightly curved. Legs long, slender; femora unarmed; hind femora incrassated for half the length from the base; tibiæ with the usual minute spines; fore tibiæ incrassated at the base. Fore wings narrow, shorter by three and a half lines than the hind wings; areolets very numerous and minute and irregular. Hind wings white, with the colour and texture of the fore wings along the apical part of the costa; veins very pale yellow. Length of the body 6 lines; expansion of the fore wings 15 lines.

a. Natal. From Mr. Stevens' collection.

24. Phaneroptera plana.

Mas. *Testaceo-viridis, sat robusta; oculi fulvi, fere rotundi, sat prominuli; prothorax ochraceo bilineatus; cerci subcylindrici, sat arcuati; cornicula duo infera subcylindrica, subarcuata; pedes graciles, femoribus spinulosis; alæ anticæ sat angustæ, strigis duabus posticis basalibus ferrugineis; alæ posticæ diaphanæ, apud costæ apicem viridi strigatæ.*

Male. Testaceous-green, smooth, rather stout. Head nearly as broad as the prothorax, with a short keel between the eyes; front erect. Eyes tawny, nearly round, rather prominent. Palpi with the usual structure. Antennæ long, slender. Disk of the prothorax flat, slightly widening hindward, with an abbreviated curved transverse line in the middle; lateral keels well defined, each accompanied by an ochraceous line; fore border slightly excavated; sides and hind border slightly rounded. Prosternum entire; mesosternum and metasternum deeply notched. Cerci and lower appendages rounded at the tips, nearly cylindrical, the former more curved than the latter. Legs long, slender; femora and four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows; hind femora incrassated towards the base; fore tibiæ slightly dilated at the base. Fore wings rather narrow, with a ferruginous streak along the anal vein and another nearer the base of the hind border; interno-medial vein abruptly curved to the hind border near its tip; branch of the externo-medial vein forked; areolets very numerous and minute and irregular. Hind wings pellucid, longer by one line than the fore wings, green and with the texture of the fore wings along the apical part of the costa; veins

white. Length of the body 9 lines; expansion of the fore wings 30 lines.

It is distinguished from the more typical species of the genus by the fore wings, which are longer in proportion to the hind wings.

a. Natal. From M. Gueinzius' collection.

25. Phaneroptera turbata.

Mas. *Testacea, sat robusta; labrum album; prothorax et capitis vertex fusca; oculi ovati, prominuli; prothoracis carinæ laterales bene determinatæ; abdomen fusco interrupte vittatum; pedes graciles, femoribus spinulosis, femoribus posticis fusco conspersis; alæ anticæ angustæ, tympano cinereo; alæ posticæ cinereæ, striga basali vittaque exteriore costali plagaque apicali testaceis.*

Male. Testaceous, smooth, rather stout. Vertex of the head and disk of the prothorax brown. Head a little narrower than the prothorax, with a short keel between the eyes; front erect, thinly punctured; labrum white. Eyes oval, prominent. Palpi with the usual structure. Antennæ long, slender. Disk of the prothorax flat, wider hindward; lateral keels well defined; fore border hardly excavated; sides and hind border rounded. Mesosternum and metasternum slightly excavated. Abdomen with an interrupted brown stripe. Legs long, slender; femora and four anterior tibiæ with two rows of minute spines; hind tibiæ with four rows; hind femora speckled with brown, incrassated for half the length from the base; fore tibiæ dilated at the base. Fore wings narrow, shorter by one line and a half than the hind wings; tympanum cinereous; areolets very numerous and minute and irregular. Hind wings cinereous, testaceous at the base of the costa and with a testaceous stripe along the exterior part of the costa, the stripe connected with an apical testaceous patch; veins testaceous. Length of the body 11 lines; expansion of the fore wings 32 lines.

The transverse well-defined veins between the externo-medial vein and the forked branch of the latter distinguish this species from the other African *Phaneropteræ* here described.

a. Congo. Presented by Sir J. Richardson.

South Asia.

26. Phaneroptera rufonotata.

rufonotata, *Serv. Hist. Orth.* 416—Steirodon lanceolatum, *Walk. Ann. Nat. Hist.* 3*rd Ser.* iv. 221.

Bombay.

a—*g*. Ceylon. Presented by Dr. Templeton.

27. Phaneroptera subcarinata.

subcarinata, *Stal, Eug. Resa*, 319.

a. China. Presented by J. C. Bowring, Esq.

28. Phaneroptera rubescens.

rubescens, *Stal, Eug. Resa*, 319.
Hong Kong.

29. Phaneroptera quinquenervis.

quinquenervis, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 193.
Japan. Java.

30. Phaneroptera pilipes.

pilipes, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 194.
Japan.

31. Phaneroptera? ensis.

ensis, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 194.
Japan. Borneo.

32. Phaneroptera melanocantha.

Mas. *Viridis, gracilis; caput pallido unilineatum, labro albido; oculi fulvi, elliptici, prominuli; antennæ fulvæ, basi nigro strigatæ; prothorax linea lutea ochraceo diffuse marginata; abdominis dorsum carinatum; cerci arcuati; cornicula duo infera subcylindrica, vix arcuata; pedes graciles, femoribus nigro spinulosis et basi strigatis; alæ anticæ angustæ, testaceo et postice fusco aut nigro conspersæ, costa margineque postico ochraceis; alæ posticæ albæ, apud costæ apicem ochraceo late striyatæ.*

Male. Grass-green, smooth, slender. Head a little narrower than the prothorax, with a short keel between the eyes and with a pale longitudinal line; front shining, erect; labrum whitish. Eyes tawny, elliptical, prominent. Palpi with the usual structure. Antennæ tawny, long, slender, irregularly striped with black on the outer side at the base; first and second joints stout. Disk of the prothorax flat, wider hindward, with a luteous longitudinal line which is diffusedly bordered with ochraceous; fore border hardly excavated; sides and hind border slightly rounded. Mesosternum and metasternum notched. Abdomen compressed, keeled above. Cerci converging, curved upward; lower appendages long, horizontal, nearly cylindrical, hardly curved towards each other. Legs long, slender; femora with minute black spines and with a black streak on the outer side at the base; hind tibiæ minutely setulose, their spines as usual. Fore wings narrow, shorter by almost three lines than the hind wings, thickly and minutely speckled with testaceous and towards the hind border with brown or black; costa and hind border ochraceous; the small areolets very minute and irregular and numerous; the large areolets regular, quadrilateral, well defined. Hind wings white, broadly dull ochraceous along the apical part of the costa. Length of the body 7 lines; expansion of the fore wings 28 lines.

The black spines of the femora distinguish this species from *P. rufonotata*. The large areolets of the fore wings are more regular and more clearly defined than those of the typical species, such as *P. falcata* and *P. angustifolia*.

a. Ceylon. Presented by Dr. Templeton.

23. Phaneroptera neochlora.

Mas et fœm. *Viridis, gracilis; labrum album; oculi parvi, prominuli, subovati; antennæ testaceæ; prothoracis carinæ laterales bene determinatæ; pedes graciles, femoribus spinulosis; alæ anticæ angustæ; alæ posticæ diaphanæ, apud costæ apicem viridi strigatæ.* Mas.—*Prothorax et capitis vertex vitta ochracea fusco submarginata; abdomen fusco uniplagiatum; cerci lanceolati, arcuati; cornicula duo infera longiora, valde arcuata; ala antica sinistra margine postico ochraceo.* Fœm.—*Prothorax et capitis vertex luteo unilineati; oviductus abdominis dimidio æquilongus.*

Male and female. Vivid grass-green, smooth, slender. Head a little narrower than the prothorax, with a short keel between the eyes; front shining, upright; labrum white. Eyes brown or pale livid, small, prominent, slightly oval. Palpi with the usual structure. Antennæ testaceous, long, slender. Prothorax with well-defined lateral keels; fore border hardly excavated; sides and hind border slightly rounded. Mesosternum and metasternum notched. Legs long, slender; femora and tibiæ with the usual minute spines. Fore wings narrow, shorter than the hind wings by one line and a half; areolets very numerous and minute and irregular; the larger areolets not very conspicuous. Hind wings pellucid; veins white; a streak along the apical part of the costa like the fore wings in colour and texture. *Male.*—Prothorax and vertex of the head with an ochraceous stripe which is partly and slightly bordered with brown. Abdomen with a brown patch near the base. Cerci lanceolate, curved upward, shorter than the lower appendages, which are much curved upward. Left fore wing with an ochraceous line along the hind border, widened near the base to the anal vein. *Female.*—Prothorax and vertex of the head with a luteous line. Oviduct deep, much curved upward, about half the length of the abdomen. Length of the body 7½—8½ lines; expansion of the fore wings 25—27 lines.

It may be a local variety of *P. rufonotata*.

a—*c*. China. Presented by G. T. Laye, Esq.

34. Phaneroptera punctifera.

Mas. *Testaceo-viridis, gracilis; oculi fusci, ovati, prominuli; antennæ fulvæ, basi testaceæ; prothorax nigricante conspersus, pallido quinquelineatus, carinis lateralibus bene determinatis; abdomen corniculis duobus inferis longis subarcuatis; pedes graciles, femoribus tibiisque spinulosis; alæ anticæ angustæ, nigro punctatæ; alæ posticæ diaphanæ striga costali apicali testaceo-viridi nigro punctata.*

Male. Testaceous-green, smooth, slender. Head almost as broad as the prothorax, with the usual forked keel between the eyes; fore part

shining; front erect. Eyes brown, oval, prominent. Palpi with the usual structure. Antennæ tawny, long, slender, testaceous at the base; first and second joints incrassated. Prothorax elongate, with blackish speckles and with five longitudinal pale lines; fore border hardly excavated; sides nearly straight; hind border slightly rounded; disk flat, wider hindward; lateral keels well defined. Abdomen with two long brown appendages which are slightly curved upward. Legs long, slender; femora and tibiæ with the usual minute spines. Fore wings narrow, shorter by three lines than the hind wings, with many black points, some of which form clusters in the disks of the large areolets, which are quadrilateral, regular and well defined, and include very minute and hardly traceable areolets. Hind wings pellucid, testaceous-green and with black punctures along the apical part of the costa; veins white. Length of the body 10 lines; expansion of the fore wings 36 lines.

This species is rather larger than *P. rufonotata*, the eyes are more prominent and the wings are longer.

a. Silhet. From Mr. Sowerby's collection.

35. Phaneroptera roseata.

Fœm. *Viridis, gracilis; caput album, vertice albido rufescente signato; oculi rufescentes, prominuli, fere rotundi; palpi albidi, apice virides; antennæ fuscæ, articulis basi pallidis; prothorax nigricante conspersus, carinis lateralibus subdeterminatis; mesothorax et metathorax albi disco rosei; abdomen roseo late vittatum; cerci lanceolati, arcuati, setulosi; oviductus abdominis dimidio brevior; pedes graciles, femoribus inermibus nigro punctatis, tibiis nigro spinulosis supra subroseis; alæ anticæ angustæ, margine postico subochraceo; alæ posticæ diaphanæ, striga costali apicali viridi, venis longitudinalibus roseis.*

Female. Vivid pale green, smooth, slender. Head whitish, almost as broad as the prothorax, white and shining in front; a curved reddish line on the vertex, connected on each side with an anterior forked reddish line; front erect. Eyes reddish, prominent, nearly round. Palpi whitish, with the usual structure; tips green. Antennæ brown, long, slender; first and second joints pale, the following joints pale at the base. Prothorax with blackish speckles; disk flat; lateral keels slightly defined; fore border hardly excavated; sides and hind border rounded. Mesothorax and metathorax white; disk rosy. Abdomen with a broad rosy stripe. Cerci lanceolate, setulose, curved towards each other. Oviduct deep, much curved, rather less than half the length of the abdomen. Legs long, slender; femora unarmed, with some black points; tibiæ slightly rosy above, with the usual spines, which are black and very minute; fore tibiæ dilated at the base. Fore wings with an ochraceous tinge along the hind border, shorter by three and a half lines than the hind wings; areolets conspicuous, very minute and very irregular; larger areolets irregular. Hind wings pellucid; streak along the apical part of the costa like the fore wings in colour and texture; veins rosy; transverse veins white. Length of the body 8 lines; expansion of the fore wings 24 lines.

The fore wings are shorter in proportion to the hind wings than those of *P. neochlora*, and their longitudinal veins are much less conspicuous, and the apical streak of the hind wings is longer.

a. North Hindostan. From Capt. Reid's collection.

36. Phaneroptera privata.

Mas. *Testaceo-viridis, gracilis; oculi fusci, elliptici, subprominuli; prothorax postice fuscus, carinis lateralibus vix determinatis; abdomen cercis corniculisque duobus inferioribus lanceolatis arcuatis, his longioribus; pedes graciles, femoribus tibiisque spinulosis; alæ anticæ angustæ, tympano dextro pellucido, plaga basali sinistra fusca; alæ posticæ diaphanæ, striga costali apicali testaceo-viridi.*

Male. Testaceous-green, smooth, slender. Head nearly as broad as the prothorax, with the usual forked keel; front erect. Eyes brown, elliptical, slightly prominent. Palpi with the usual structure. Antennæ testaceous, long, slender; first and second joints incrassated. Prothorax with a flat disk which widens hindward; hind part brown; fore border hardly excavated; sides straight; hind border slightly rounded; lateral keels slightly defined. Mesosternum and metasternum notched. Cerci and the two lower appendages lanceolate, curved upward, the latter longer than the former. Legs long, slender; femora and tibiæ with the usual minute spines; hind femora incrassated for half the length from the base; fore tibiæ slightly dilated at the base. Fore wings narrow, shorter than the hind wings by two lines and a half; externo-medial vein emitting five oblique branches, of which the fifth is forked; areolets very minute and irregular, included in larger regular areolets; space between the anal vein and the hind border mostly pellucid in the right wing, brown in the left wing. Hind wings pellucid, with the usual apical streak; veins pale testaceous; transverse veinlets white. Length of the body 7 lines; expansion of the fore wings 24 lines.

It has much resemblance to *P. rufonotata*.

a. Silhet. From Mr. Sowerby's collection.

37. Phaneroptera insignis.

Mas. *Testaceo-viridis, sat robusta, fusco conspersa; caput albidum, vertice rufescente lineis quinque pallidis; oculi fusci, elliptici, prominuli; prothoracis carinæ laterales vix determinatæ; abdomen cercis corniculisque duobus inferis lanceolatis, his magis arcuatis plus duplo longioribus; pedes graciles, longissimi, femoribus tibiisque spinulosis, tibiis tarsisque fulvis; alæ anticæ sat angustæ, nigro punctatæ, apice rotundatæ, tympano dextro pellucido, plaga sinistra basali nigra; alæ posticæ diaphanæ, apice testaceo-virides.*

Male. Testaceous-green, smooth, rather stout. Head and prothorax with brown speckles. Head whitish, shining, nearly as broad as the prothorax; vertex reddish, with five pale longitudinal lines and with a forked keel; front erect. Eyes brown, elliptical, prominent. Palpi with the usual structure. Prothorax with a flat disk which widens hindward; lateral keels slightly defined; fore border hardly excavated; sides and hind border

slightly rounded. Prosternum and mesosternum excavated; metasternum entire. Apical appendages of the abdomen lanceolate, curved upward. Cerci very stout, less than half the length of the lower appendages, which are more curved. Legs slender, very long; femora and tibiæ with the usual minute spines; hind femora incrassated for nearly half the length from the base; tibiæ and tarsi tawny; fore tibiæ slightly dilated at the base. Fore wings shorter by one line than the hind wings, rather narrow, much rounded at the tips, with a few black points in each of the large areolets, which are regular, quadrilateral and conspicuous; the minute areolets very indistinct; veins between the scapular vein and the costa and between the interno-medial vein and the hind border transverse, nearly parallel to each other; externo-medial vein with two forked branches; space between the anal vein and the hind border with a pellucid tympanum in the right wing and with a black patch in the left wing; a broad blackish streak beyond the patch, reticulated by pale veins; hind border with numerous black points in both wings. Hind wings pellucid; tips with the colour and texture of the fore wings; veins testaceous; transverse veinlets white. Length of the body 11 lines; expansion of the fore wings 36 lines.

The fore wings are more rounded at the tips than those of the typical species of the genus; they are also longer in proportion to the hind wings.

a. Silhet. From the Rev. Mr. Stainforth's collection.

38. PHANEROPTERA NOTABILIS.

Fœm. *Testacea, sat robusta; caput antice albidum, subtus nigrum; oculi fulvi, brevi-elliptici, prominuli; antennæ nigræ, basi fulvæ, corpore fere triplo longiores; prothorax nigro bilineatus, carinis lateralibus bene determinatis; cerci lanceolati, subarcuati; oviductus apicem versus erectus, abdominis dimidio multo brevior; pedes graciles, longissimi; alæ anticæ virides, nigro punctatæ; alæ posticæ diaphanæ, plaga apicali viridi.*

Female. Testaceous, smooth, rather stout. Head whitish and shining on each side and in front; black beneath; vertex with the usual keel, which is whitish. Eyes tawny, short-elliptical, prominent. Palpi with the usual structure. Antennæ black, tawny towards the base, nearly thrice the length of the body. Prothorax with two black lines along the well-defined lateral keels, which slightly approach each other in the middle; fore border hardly excavated; sides and hind border slightly rounded. Sternum notched. Cerci lanceolate, slightly curved upward. Oviduct deep, curved, erect towards the tip, much less than half the length of the abdomen. Legs slender, very long, with the usual structure. Fore wings green, shorter by one line and a half than the hind wings, with a few black points in each of the large areolets; costa with larger points; hind border with more numerous points. Hind wings pellucid; a large costal patch at the tip with the colour and texture of the fore wings; veins testaceous; transverse veinlets white. Length of the body 11 lines; expansion of the fore wings 34 lines.

The fore wings are a little narrower and less rounded at the tips than those of *P. insignis*; it may be the female of that species.

a. Silhet. From Mr. Sowerby's collection.

39. PHANEROPTERA DIVERSA.

Fœm. *Ochraceo-viridis, gracilis; caput subtus nigrum; oculi fusci, elliptici, subprominuli; antennæ fuscæ, basi pallidæ; prothorax rufo unilineatus, carinis lateralibus indeterminatis; prosternum antice nigrum; mesosternum et metasternum incisa; abdomen roseo late vittatum; oviductus abdominis dimidio brevior; pedes graciles, femoribus tibiisque subspinulosis; alæ anticæ angustæ, areolarum discis margineque postico nigro punctatis; alæ posticæ diaphanæ, apice viridi plagiatæ.*

Female. Ochraceous-green, slender, smooth. Head as broad as the prothorax, with the usual forked keel, black beneath, shining in front. Eyes brown, elliptical, slightly prominent. Fourth joint of the maxillary palpi less than half the length of the fifth. Antennæ brown, long, slender, pale at the base. Prothorax with a red longitudinal line; lateral keels indeterminate; fore border hardly excavated; sides nearly straight; hind border slightly rounded. Prosternum black in front; mesosternum and metasternum notched. Abdomen with a broad rosy stripe. Oviduct deep, widely curved, erect towards the tip, much less than half the length of the abdomen. Legs long, slender; spines of the femora and of the tibiæ extremely minute; hind femora very slightly incrassated for half the length from the base; fore tibiæ slightly dilated at the base. Fore wings narrow, shorter by two lines than the hind wings, with black points in the disks of the discoidal areolets and along the hind border, where they are most numerous. Hind wings pellucid; veins testaceous; transverse veinlets white; apical green patch with black points. Length of the body 11½ lines; expansion of the fore wings 36 lines.

It may be distinguished from *P. insignis* and from *P. notabilis* by the structure of the fore wings; the branch of the externo-medial vein emerges much nearer the base of the wing and emits five oblique veins from its hind side.

Mas.? *Testacea; caput antice albidum; prothoracis discus subcarinatus, carinis lateralibus bene determinatis; cerci valde arcuati; cornicula duo infera subarcuata; alæ posticæ apice testaceo plagiatæ.*

Male? Testaceous, smooth, slender. Head nearly as broad as the prothorax, with the usual forked keel; fore part whitish, shining; front erect. Eyes livid, prominent, nearly round. Antennæ brown, long, slender, testaceous at the base. Prothorax with a slight longitudinal keel; disk flat, thinly and minutely speckled with black; lateral keels well-defined; fore border and sides hardly excavated; hind border slightly rounded. Mesosternum notched. Cerci slender, much curved upward; the two lower appendages slender, lanceolate, slightly curved. Legs long, slender; spines of the femora and of the tibiæ extremely minute; basal half of the hind femora very slightly incrassated; fore tibiæ slightly dilated at the base. Fore wings narrow, shorter by two lines than the hind wings, with black points in the disks of the discoidal areolets and along the hind border, where they are most numerous. Hind wings pellucid; apical patch

testaceous; veins pale testaceous; transverse veinlets white. Length of the body 9 lines; expansion of the fore wings 40 lines.

a, *b*. Silhet. From the Rev. Mr. Stainforth's collection.

40. Phaneroptera aliena.

Mas. *Testacea, gracilis; caput et prothorax fusco nigroque conspersa; caput antice albidum; oculi fusci, brevi-elliptici, prominuli; prothorax quadrivittatus, carinis lateralibus bene determinatis; mesosternum et metasternum incisa; cerci graciles, arcuati; cornicula duo infera longiora; pedes graciles, femoribus tibiisque subspinulosis, tibiis extus fuscis; alæ anticæ perangustæ, fusco punctatæ, nigricante conspersæ; alæ posticæ albidæ, plaga apicali testacea fusco conspersa.*

Male. Dull testaceous, smooth, very slender. Head and prothorax thinly and minutely speckled with brown and with black. Head nearly as broad as the prothorax, with the usual structure; fore part whitish, shining. Eyes brown, short-elliptical, prominent. Palpi with the usual structure. Antennæ long, slender. Prothorax with a flat disk and with well-defined lateral keels; two darker stripes on each side; sides and hind border slightly rounded. Mesosternum more notched than the metasternum. Cerci and the two lower appendages slender, curved upward, the latter longer than the former. Legs long, slender; femora and tibiæ with very minute spines; hind femora very slightly incrassated for half the length from the base; tibiæ brown on the outer side; fore tibiæ hardly dilated at the base. Fore wings very narrow, shorter by three lines and a half than the hind wings, with numerous brown points and with a few larger blackish speckles; externo-medial vein emitting several oblique veins. Hind wings whitish; veins white; apical streak testaceous, brown-speckled. Length of the body 8 lines; expansion of the fore wings 25 lines.

This species differs much from the typical joint in the structure of the fore wings, and perhaps should be removed from *Phaneroptera*.

a. Silhet. From the Rev. Mr. Stainforth's collection.

Australasia.

41. Phaneroptera parumpunctata.

parumpunctata, *Serv. Hist. Orth.* 418.

Java.

42. Phaneroptera brevis.

brevis, *Serv. Hist. Orth.* 418..

Java.

43. Phaneroprera gracilis.

gracilis, *Burm. Handb. Ent.* ii. 690.

Java.

44. Phaneroptera triticifolia.

Locusta (Phaneroptera) triticifolia, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 192.

Borneo.

45. Phaneroptera adusta.

Locusta (Phaneroptera) adusta, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 192.

New Guinea.

46. Phaneroptera Celebica.

Locusta (Phaneroptera) Celebica, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 193.

Celebes.

47. Phaneroptera loliifolia.

Locusta (Phaneroptera) loliifolia, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 194.

Java.

48. Phaneroptera? hordeifolia.

Locusta (Phaneroptera) hordeifolia, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 195.

Timor.

49. Phaneroptera subnotata.

subnotata, *Stal*, *Eug. Resa*, 318.

Manilla.

50. Phaneroptera? Oceanica.

Oceanica, *Blanch*, *Voy. Pol. Sud.* 365. *Atlas*, *Orth.* pl. 3, f. 4.

New Guinea.

Australia.

51. Phaneroptera? thymifolia.

Locusta thymifolia, *Fabr. Ent. Syst.* ii. 35.

Australia.

52. Phaneroptera parvicauda.

porvicauda, *Stal*, *Eug. Resa*, 320.

Sidney.

53. Phaneroptera nobilis.

Mas. *Pallide viridis, sat valida; caput antice albidum; oculi fulvi, rotundi, valde prominuli; prothorax flavescente unilineatus, carinis lateralibus indeterminatis; sternum incisum; abdomen roseo late*

vittatum ; cerci graciles, sublanceolati, valde arcuati ; cornicula duo infera latiora, vix arcuata ; pedes graciles, longissimi, tibiis quatuor anterioribus femoribusque spinulosis, tibiis posticis spinosis ; alæ anticæ sat angustæ, roseo marginatæ, costa basi nigro lineata ; alæ posticæ diaphanæ, apice viridi plagiatæ, alis anticis non longiores.

Male. Pale green, smooth, rather stout. Head a little narrower than the prothorax, whitish and shining in front, with the usual forked keel between the eyes; front erect. Eyes tawny, round, very prominent. Maxillary palpi very slender; fourth joint much shorter than the third and not more than half the length of the fifth. Antennæ long, slender. Prothorax with an indistinct yellowish longitudinal line and with three transverse impressed lines, of which the first is widely interrupted and the second and third are curved hindward; disk flat, widening hindward; lateral keels indeterminate; fore border hardly excavated; sides straight; hind border rounded. Sternum notched. Abdomen with a broad rosy dorsal stripe. Cerci slender, slightly lanceolate, much curved, crossing each other; the two lower appendages broadly lanceolate, hardly curved. Legs slender, very long; femora and four anterior tibiæ with the usual minute spines; hind femora incrassated for half the length from the base; fore tibiæ slightly dilated at the base; hind tibiæ with four rows of rather small spines. Fore wings rather narrow, as long as the hind wings, dull red between the costa and the hind border; a white tinge along the basal part of the costa which is rosy, the latter hue fading away towards the tip, accompanied by a black line at the base; hind border rosy; minute areolets as usual; the larger areolets not clearly defined. Hind wings pellucid; veins white; a green patch on the fore part of the tip. Length of the body 12 lines; expansion of the hind wings 46 lines.

The equal length of the four wings distinguish it from nearly all the other species of the genus.

a, *b*. Australia. From Mr. Damel's collection.

54. Phaneroptera strenua.

Fœm. *Viridi-flavescens, sat valida ; oculi elliptici, prominuli ; antennæ fuscæ, basi pallidæ ; prothorax linea longitudinali lineisque duabus transversis impressis, carinis lateralibus bene determinatis ; mesosternum et metasternum valde incisa ; pedes graciles, tibiis quatuor anterioribus femoribusque spinulosis, tibiarum posticarum spinis sat magnis apice nigris ; alæ posticæ diaphanæ, plaga apicali viridi.*

Female. Yellowish, smooth, rather stout, with some traces of the green hue which was prevalent in the living state. Head nearly as broad as the prothorax, with the usual structure; fore part shining. Eyes elliptical, prominent. Palpi with the usual structure. Antennæ brown, long, slender, pale towards the base. Prothorax with a flat disk which widens hindward; one longitudinal and two transverse impressed lines; lateral keels well defined; fore border hardly excavated; sides and hind border rounded. Mesosternum and metasternum deeply notched. Legs long, slender; femora and four anterior tibiæ with minute spines; hind femora incrassated for half the length from the base; fore tibiæ slightly dilated at the base; hind tibiæ with the spines larger than usual and with black tips.

Fore wings narrow, shorter by two lines than the hind wings; minute areolets and larger areolets irregular; externo-medial vein emitting two oblique branches beyond the usual forked branch. Hind wings pellucid, with an apical green patch; veins white. Length of the body 12½ lines; expansion of the fore wings 38 lines.

a. Australia. Presented by the Haslar Hospital.

55. Phaneroptera pinguis.

Mas. *Viridis, robusta; labrum albidum; oculi fulvi, elliptici, valde prominuli; prothorax albido bivittatus, carinis lateralibus bene determinatis; mesosternum et metasternum incisa; abdomen ochraceum, viridi transverse strigatum; cerci testacei, recti; cornicula duo infera arcuata; pedes graciles, tibiis quatuor anterioribus femoribusque spinulosis; tibiarum posticarum spinis sat magnis; alæ anticæ costæ dimidio basali albo; alæ posticæ diaphanæ, plaga apicali viridi.*

Male. Grass-green, stout, smooth. Head a little narrower than the prothorax, with the usual structure; fore part shining; labrum whitish; mandibles with black tips. Eyes tawny, elliptical, very prominent. Prothorax with a whitish stripe and with a well-defined keel on each side of the flat disk, which widens hindward; fore border almost straight; sides slightly rounded; hind border rounded. Mesosternum much more deeply notched than the metasternum. Abdomen ochraceous, with a transverse green streak on each side on the hind border of each segment. Cerci testaceous, lanceolate, straight; inferior appendages curved. Legs long, slender; femora and four anterior tibiæ with minute spines; hind femora incrassated for more than half the length from the base; hind tibiæ with rather large spines. Fore wings narrow, shorter by two lines and a half than the hind wings; costa white for more than half the length from the base; minute areolets very irregular; large areolets mostly irregular. Hind wings pellucid; apical patch green; veins white. Length of the body 13 lines; expansion of the fore wings 42 lines.

The three regular oblique veins which proceed from the externo-medial vein distinguish *P. strenua* from this species.

a. Moreton Bay. Presented by — Gibbons, Esq.

56. Phaneroptera glaucescens.

Mas. *Glauco-viridis, gracilis; caput antice albidum; oculi fulvi, prominuli, fere rotundi; antennæ rufescentes; prothorax rufescente bilineatus, carinis lateralibus bene determinatis; mesosternum et metasternum incisa; cerci graciles, arcuati; pedes graciles, femoribus inermibus, tibiis spinulosis; alæ anticæ spatio basali postico fulvo piceo-plagiato basi albido, margine postico fulvo; alæ posticæ diaphanæ, apice viridi plagiatæ.*

Male. Glaucous-green, smooth, slender. Head nearly as broad as the prothorax, with the usual structure; fore part whitish, shining. Eyes tawny, prominent, nearly round. Antennæ reddish, long, slender. Prothorax with a flat disk which widens hindward and is bordered on each side

by a pale reddish line and a well-defined lateral keel; fore border and sides nearly straight; hind border slightly rounded. Mesosternum and metasternum notched. Cerci slender, curved. Legs long, slender; femora unarmed; tibiæ with very minute spines. Fore wings narrow, shorter by one line and a half than the hind wings; space between the anal vein and the hind border tawny, with a piceous patch, whitish at the base; hind border tawny; structure of the veins like that of *P. falcata* and of *P. angustifolia*; large areolets not clearly defined, mostly irregular. Hind wings pellucid, with a broad apical green streak; veins white. Length of the body 8 lines; expansion of the fore wings 26 lines.

a. King George's Sound. Presented by Sir G. Grey.

57. Phaneroptera congrua.

Mas. *Viridis, gracilis; caput antice albidum; oculi fusci, ovati, prominuli; prothoracis carinæ laterales vix determinatæ; sternum incisum; cerci graciles, arcuati; pedes graciles, femoribus tibiisque spinulosis; alæ anticæ margine postico fulvo, tympano nullo; alæ posticæ diaphanæ, plaga apicali viridi.*

Male. Grass-green, smooth, slender. Head with the usual structure; fore part whitish, shining. Eyes brown, oval, prominent. Antennæ long, slender. Prothorax with a flat disk which widens very slightly hindward; lateral keels slightly defined; fore border slightly excavated; sides rounded; hind border slightly rounded. Sternum notched in each part. Cerci and inferior appendages curved, slender, lanceolate. Legs slender; femora and tibiæ with minute spines; hind femora incrassated for half the length from the base; fore tibiæ slightly dilated at the base. Fore wings narrow, shorter by one line and a half than the hind wings; hind border tawny; large areolets well defined, generally regular. Hind wings pellucid, with a green apical patch; veins pale green. Length of the body 8½ lines; expansion of the fore wings 28 lines.

The large areolets of the fore wings are more clearly defined and generally more regular than those of *P. glaucescens*; it differs especially from that species in having no tympanum.

a. New South Wales. Presented by Dr. Sinclair.

58. Phaneroptera subroseata.

Fœm. *Viridis, gracilis; caput carinula furcata rosea, labro albo; oculi testacei, elliptici, prominuli; antennæ testaceæ; prothorax ochraceo bivittatus; carinis lateralibus bene determinatis; sternum incisum; oviductus abdominis dimidio brevior; pedes longiusculi, sat graciles, tibiis quatuor anterioribus femoribusque spinulosis, tibiis posticis spinosis; alæ anticæ sat angustæ, margine postico testaceo; alæ posticæ diaphanæ, plaga apicali viridi.*

Female. Grass-green, smooth, slender, shining. Head with the usual structure, as broad as the prothorax; keel between the eyes rosy; labrum white. Eyes testaceous, elliptical, prominent. Palpi with the usual structure. Antennæ testaceous, long, slender. Prothorax with a flat disk which widens hindward and has an ochraceous stripe and a well-defined

lateral keel on each side; fore border slightly excavated; sides and hind border rounded. Sternum notched in each part. Abdomen with a rosy stripe which is dilated on the hind border of each segment. Oviduct with the usual structure, less than half the length of the abdomen. Legs rather long and slender; spines of the femora and of the four anterior tibiæ very minute; those of the hind tibiæ larger. Fore wings rather narrow, shorter by half a line than the hind wings; hind border and a line along the anal vein testaceous; large areolets clearly defined, mostly regular. Hind wings pellucid; apical patch green; veins greenish white. Length of the body 10½ lines; expansion of the fore wings 30 lines.

In the comparative length of the fore wings and of the hind wings it much resembles *P. lata*, but the areolets of the fore wings are more regular than in that species.

a. Australia. From Mr. Damel's collection.

59. Phaneroptera valida.

Mas. *Viridis, gracilis, testaceo varia; oculi fusci, elliptici, prominuli; prothorax carinis lateralibus bene determinatis; mesosternum et metasternum valde incisa; cerci subarcuati; cornicula duo infera brevissima; pedes graciles, femoribus tibiisque spinulosis; alæ posticæ diaphanæ, playa apicali viridi.*

Male. Green, smooth, slender. Body partly testaceous. Head with the usual structure, a little narrower than the prothorax; fore part shining. Eyes brown, elliptical, prominent. Antennæ long, slender. Prothorax with a flat disk which widens hindward and has on each side a well-defined lateral keel; fore border very slightly excavated; sides and hind border rounded. Mesosternum and metasternum deeply notched. Cerci lanceolate, slightly curved upward; the two lower appendages very short. Legs long, slender; femora and four anterior tibiæ with very minute spines, those of the hind tibiæ a little larger; hind femora incrassated for more than half the length from the base; fore tibiæ slightly dilated at the base. Fore wings narrow, shorter by two lines than the hind wings; large areolets not distinctly marked, mostly irregular; longitudinal veins with the usual structure. Hind wings pellucid; apical patch green; veins very pale green. Length of the body 8 lines; expansion of the fore wings 36 lines.

It may be distinguished from *P. glaucescens*, *P. congrua* and *P. subroseata* by the fore wings, which are longer in proportion to the hind wings. It is rather more slender than *P. pinguis*, and the spines of the hind tibiæ are smaller.

a. South Australia. Presented by R. Bakewell, Esq.

60. Phaneroptera simplex.

Fœm. *Viridis, sat gracilis; caput plagis duabus labroque albidis; oculi pallide lividi, ovati, prominuli; antennæ fulvæ, basi pallide virides; prothorax luteo bivittatus, carinis lateralibus bene determinatis; sternum incisum; oviductus abdominis dimidio valde brevior; pedes*

sat validi, vix longi, femoribus tibiisque spinulosis ; alæ anticæ sat angustæ, margine postico fusco-punctato ; alæ posticæ diaphanæ, plaga apicali viridi.

Female. Green, smooth, shining, rather slender. Head with the usual structure, almost as broad as the prothorax; a whitish patch on each side of the vertex; labrum whitish. Eyes pale livid, oval, prominent. Palpi with the usual structure. Antennæ tawny, long, slender, pale green towards the base. Prothorax with a flat disk which hardly widens hindward and with two luteous stripes on the well-defined lateral keels; fore border slightly excavated; sides and hind border rounded. Sternum notched in each division. Oviduct much less than half the length of the abdomen. Legs rather stout, moderately long; femora and four anterior tibiæ with very minute spines; hind femora incrassated for much more than half the length from the base; fore tibiæ slightly dilated at the base; hind tibiæ with rather small spines. Fore wings rather narrow, shorter by half a line than the hind wings; hind border with brown points; large areolets mostly regular; longitudinal veins with the usual structure. Hind wings pellucid; apical patch green; veins greenish white. Length of the body 8 lines; expansion of the fore wings 32 lines.

It differs from *P. subroseata* in the costa being like the rest of the fore wings in colour. The stripes on the prothorax and the rather shorter hind tibiæ distinguish it from *P. congrua*. The colour of the antennæ and the more regular large areolets of the fore wings distinguish it from *P. glaucescens*. The hind tibiæ are much shorter than those of *P. valida*.

a. Sydney. Presented by Dr. Sinclair.

61. Phaneroptera extenuata.

Fœm. *Viridis, gracillima ; labrum albidum ; oculi fulvi, elliptici, subprominuli ; prothorax carinis lateralibus valde determinatis, vittis duabus ochraceis albo submarginatis ; mesosternum et metasternum incisa ; cerci subarcuati ; oviductus brevissimus ; pedes graciles, femoribus inermibus, tibiis spinulosis ; alæ anticæ perangustæ ; alæ posticæ diaphanæ, plaga apicali viridi.*

Female. Green, smooth, very slender. Head of the usual structure, a little narrower than the prothorax; fore part shining; labrum whitish. Eyes tawny, elliptical, slightly prominent. Palpi of the usual structure. Prothorax with a flat disk which widens hindward and has a sharply defined lateral keel and an ochraceous partly white-bordered stripe on each side; fore border hardly excavated; sides and hind border rounded. Mesosternum and metasternum notched. Cerci lanceolate, slightly curved upward. Oviduct curved, moderately deep, not more than one-fourth of the length of the abdomen. Legs long, slender; femora unarmed; hind femora slightly incrassated for nearly half its length from the base; spines of the four anterior tibiæ very minute, those of the hind tibiæ a little larger; fore tibiæ slightly dilated at the base. Fore wings very narrow, shorter by two lines than the hind wings; larger areolets indistinct, some of them irregular. Hind wings pellucid; apical patch green; veins white, pale green along the costa. Length of the body 9 lines; expansion of the fore wings 30 lines.

It may be distinguished from all the preceding Australian species of this genus by its slender form and by its short oviduct.

a. Swan River. Presented by Sir J. Richardson.

62. Phaneroptera albidiceps.

Fœm. *Testacea, sat gracilis; caput albidum; oculi fulvi, rotundi, prominuli; antennæ fulvæ; prothoracis carinæ laterales bene determinatæ; sternum incisum; oviductus brevissimus, valde arcuatus; pedes graciles, longiusculi, femoribus inermibus, tibiis spinulosis; alæ anticæ angustæ, punctis nonnullis discoidalibus margineque postico fuscis; alæ posticæ diaphanæ, plaga apicali testacea.*

Female. Testaceous, smooth, rather slender. Head whitish, with the usual structure, almost as broad as the prothorax; fore part shining. Eyes tawny, round, prominent. Palpi with the usual structure. Antennæ tawny, long, slender. Prothorax with a flat disk which widens very slightly hindward and is bordered on each side by a sharply-defined keel; fore border slightly excavated; sides and hind border rounded. Sternum notched in each division. Oviduct deep, much curved, not more than one-fourth of the length of the abdomen. Legs slender, rather long; femora without spines; hind femora incrassated for more than half the length from the base; four anterior tibiæ with very minute spines; hind tibiæ with minute spines. Fore wings narrow, shorter by nearly one line than the hind wings, with a few brown points in the disk and with brown minute areolets along the hind border; large areolets irregular. Hind wings pellucid, with a testaceous apical patch; longitudinal veins pale testaceous; transverse veinlets white. Length of the body 9 lines; expansion of the fore wings 28 lines.

a. Australia. Presented by Sir G. Grey.

63. Phaneroptera? tenuis.

Mas. *Pallide testacea, gracillima; oculi elliptici, non prominuli; prothorax longus, subsulcatus, postice subcarinatus, carinis lateralibus bene determinatis; sternum integrum; cerci graciles; pedes gracillimi, femoribus inermibus, tibiis spinulosis; alæ anticæ perangustæ; alæ posticæ albæ, plaga apicali pallide testacea.*

Male. Pale testaceous, smooth, very slender. Head with the usual structure, a little narrower than the prothorax. Eyes elliptical, not prominent. Palpi with the usual structure. Antennæ long, slender. Prothorax elongate; disk flat, widening hindward, with two well-defined lateral keels, and with a slight longitudinal furrow which towards the hind border is replaced by a slight keel; fore border hardly excavated; sides and hind border slightly rounded. Sternum not notched. Cerci and the two lower appendages lanceolate, slender. Legs long, very slender; femora unarmed; hind femora slightly incrassated for a little more than half the length from the base; four anterior tibiæ with a few very minute spines; hind tibiæ with minute spines. Fore wings very narrow, shorter by three lines than the hind wings; areolets mostly irregular. Hind wings white; apical

patch pale testaceous; veins very pale testaceous. Length of the body 8½ lines; expansion of the fore wings 28 lines.

a. North Australia. Presented by J. R. Elsey, Esq.

Country unknown.

64. Phaneroptera lætabilis.

lætabilis, *Serv. Hist. Orth.* 415.

65. Phaneroptera macra.

macra, *Serv. Hist. Orth.* 417.

66. Phaneroptera? venusta.

venusta, *Serv. Hist. Orth.* 419.

67. Phaneroptera albida.

Mas. *Pallide testacea, gracilis; caput apud oculos et antice album; oculi fulvi, prominuli, fere rotundi; prothorax albo quadrivittatus, carinis lateralibus bene determinatis; abdominis cornicula apicalia infera longa, arcuata, apice nigra; pedes graciles, femoribus inermibus, tibiis spinulosis; alæ anticæ perangustæ, costa margineque postico diaphanis; alæ posticæ diaphanæ, striga apicali pallide testacea.*

Male. Pale testaceous, smooth, slender. Head nearly as broad as the prothorax, white about the eyes; fore part shining; front white. Eyes tawny, prominent, nearly round. Palpi with the usual structure. Antennæ long, slender, white at the base. Prothorax with a flat disk which widens hindward; four white stripes, one on each lateral keel and one along each side; lateral keels well defined; fore border hardly excavated; sides and hind border rounded. Lower abdominal appendages long, curved, with black tips. Legs slender; femora unarmed; tibiæ spinulose; fore tibiæ dilated at the base. Fore wings very narrow, shorter by three lines than the hind wings, whitish along the hind border and between the costa and the scapular vein, this space dilated and rounded towards the base; areolets large and regular in the whitish spaces, very minute and irregular elsewhere; tympanum of the right wing pellucid. Hind wings pellucid; veins white; a pale testaceous streak along the apical part of the costa. Length of the body 6 lines; expansion of the fore wings 14 lines.

The specimen described is mutilated; it hardly belongs to the genus *Phaneroptera*.

a. ——— ?

Genus 89. EPHIPPITYTHA.

Phaneroptera (Div. 2. Ephippitytha), *Serv. Hist. Orth.* 422

1. Ephippipytha triginitiduoguttata.

Phaneroptera (Ephippitytha) triginitiduoguttata, *Serv. Hist. Orth.* 422.—Ephippitytha maculata, *Evans*, *Trans. Ent. Soc.* iv. 303, pl. 21, f. c.

a, *b*. Australia. From Mr. Stutchbury's collection.
c. Australia. From Mr. Damel's collection.

d, e. Sydney. From Mr. Argent's collection.
f. Australia. From Mr. Birch's collection.
g. Australia. Presented by Sir J. Liddell.
h. Australia. From the Rev. Mr. Wenham's collection.
i. New South Wales.

2. EPHIPPITYTHA IRRORATA.

Phaneroptera (Ephippitytha) irrorata, *Serv. Hist. Orth.* 423.

Australia.

3. EPHIPPITYTHA ZEBRATA.

Phaneroptera (Ephippitytha) zebrata, *Serv. Hist. Orth.* 424, pl. 11, f. 1.

a. Natal. From M. Gueinzius' collection.

4. EPHIPPITYTHA ACANTHOCEPHALA.

Phaneroptera (Ephippitytha) acanthocephala, *Serv. Hist. Orth.* 425.

Australia.

5. EPHIPPITYTHA? PARDALIS.

Mas. *Testacea, sat gracilis; caput albido-testaceum; oculi fusci, rotundi, valde prominuli; prothorax longiusculus, postice subsulcatus, carinis lateralibus indeterminatis; pedes sat validi, femoribus tibiisque spinulosis, femoribus anticis nigricante conspersis; alæ anticæ virides, sat angustæ, apice rotundatæ, maculis guttisque nonnullis albidis nigro notatis; alæ posticæ diaphanæ.*

Male. Testaceous, smooth, shining, rather slender. Head whitish testaceous, a little narrower than the prothorax; a forked keel between the eyes; a transverse furrow between the front and the face. Eyes brown, round, very prominent. Palpi long, slender; fourth joint much shorter than the third, less than half the length of the fifth. Antennæ green, testaceous at the base. Prothorax elongate, minutely brown-speckled; hind part with a slight longitudinal furrow; lateral keels indeterminate; fore border hardly excavated; sides in the middle and hind border rounded. Mesosternum and metasternum notched. Legs long, rather stout; femora and tibiæ with minute spines; hind femora incrassated for full half the length from the base; fore femora blackish-speckled; fore tibiæ dilated at the base. Fore wings green, rather narrow, rounded at the tips, shorter by full one line than the hind wings; several whitish black-marked spots and dots of various size in the disk; large and small areolets irregular; space between the costa and the scapular vein broad. Hind wings pellucid; veins green. Length of the body 12? lines; expansion of the fore wings 38 lines.

The minute spines of the hind femora distinguish it from the typical species of this genus.

a. Silhet. From Mr. Sowerby's collection.

Genus 90. ANCYLECHA.

Ancylecha, *Serv. Hist. Orth.* 411.

1. Ancylecha lunuligera.

Locusta fenestrata? *Fabr. Ent. Syst.* ii. 34—Ancylecha lunuligera, *Serv. Hist. Orth.* 412—Locusta (Phylloptera) fenestrata, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 197.

a. Assam. From Mr. Warwick's collection.
b. Java. From Mr. Argent's collection.

Genus 91. TRICALA.

Corpus robustum. Caput cornu brevi valido oblique ascendente armatum. Oculi fere rotundi, valde prominuli. Palporum maxillarium articuli 3us et 4us robusti, subæquales; 5us valde longior et gracilior. Prothorax sellatus, transverse bisulcatus, postice subascendens. Alæ anticæ vix latæ, apice truncatæ.

Body stout, smooth, shining. Head a little narrower than the prothorax; a stout, short, obliquely ascending horn on the vertex between the eyes; front erect. Eyes nearly round, very prominent. Third and fourth joints of the maxillary palpi stout, nearly equal in length; fifth longer than the two preceding joints together and much more slender. Prothorax saddle-shaped, with two transverse furrows and with an elevated hind part. Mesosternum and metasternum notched. Fore wings hardly broad, truncated at the tips, a little shorter than the hind wings.

1. Tricola hystrix.

Phaneroptera hystrix, *Westw. Arc. Ent.* pl. 70.

Colombia.

a. Brazil. Presented by the Entomological Club.

Genus 92. VALNA.

Mas. Corpus glabrum, breviusculum, sat robustum. Caput parvum, prothorace angustius; vertex carinatus. Oculi rotundi, valde prominuli. Palpi breviusculi; articuli 3us et 4us subæquales; 5us clavatus, 4o valde longior. Prothorax sellatus, postice planus et rotundatus. Sternum incisum. Abdomen thorace vix longius; cornicula apicalia lanceolata, arcuata. Pedes breves robusti; femoribus tibiisque spinosis, femoribus dilatato spinosis. Alæ anticæ angustæ, apice subtruncatæ, alis posticis breviores.

Male. Body smooth, shining, rather stout and short. Head small, narrower than the prothorax; vertex keeled; front erect. Eyes round, extremely prominent. Maxillary palpi rather stout; third and fourth joints nearly equal in length; fifth clavate, much longer than the fourth. Antennæ long, slender. Prothorax saddle-shaped; hind part flat, elongated, rounded; fore border straight; sides rounded. Sternum notched in each division. Abdomen hardly longer than the thorax; apical appendages curved, lanceolate. Legs short, thick; femora beyond the middle with a dilated membrane which is armed with spines; four anterior tibiæ with

small slender spines; fore tibiæ dilated at the base; hind tibiæ with two rows of small slender spines and with two rows of stout spines. Fore wings narrow, slightly truncated at the tips, somewhat shorter than the hind wings; large areolets regular.

Type *V. melaleuca.*

1. VALNA MELALEUCA.

Mas. *Alba; caput striga lanceolata, litura furcata, vittis duabus fasciaque nigris; palpi nigro guttati; antennæ nigrocinctæ; prothorax postice nigro interrupte marginatus; pectus nigro biannulatum et bimaculatum; pedes nigro fasciati; alæ anticæ nigro punctatæ et maculatæ; alæ posticæ apice nigro notatæ.*

Male. White. Head with a black lanceolate streak and with a black forked mark on the vertex, with a black stripe on each side between the hind border and the eye, and with a black band between the eyes. Eyes pale livid. Palpi with black dots. Antennæ black beneath at the base and with black rings. Hind border of the prothorax interruptedly black. Pectus with a black spot and an irregular black ringlet on each side. Sternum with a purplish tinge. Abdominal appendages black at the base and at the tips. Coxæ and femora with some black marks; membrane of the hind femora brown; tibiæ black towards the tips; hind tibiæ with three black bands; tarsi black. Fore wings shorter by nearly three lines than the hind wings, with several black points in the disk, and with some irregular black spots along the costa and along the hind border; costal space pellucid. Hind wings with some black marginal spots towards the tips. Length of the body 7 lines; expansion of the fore wings 30 lines.

a. Rio Janeiro. Presented by — Busk, Esq.

2. VALNA ALIPES.

Phaneroptera alipes, *Westw. Arc. Ent.* ii. 87, pl. 70, f. 1.

Mexico. Columbia.

3. VALNA? PHYLLACANTHA.

Phaneroptera phyllacantha, *Burm. Handb. Ent.* ii. 688.

Bahia.

4. VALNA? CRUENTA.

Phaneroptera cruenta, *Burm. Handb. Ent.* ii. 691.

Rio Janeiro.

Genus 93. SANABRIA.

Mas. Corpus læve, sat gracile. Caput prothoraci æquilatum; vertex convexus. Mandibulæ magnæ. Oculi longi elliptici, prominuli. Palpi sat robusti; articulus 5us 4o duplo longior. Prothorax sellatus, lateribus margineqne postico subrotundatis. Abdomen basi conico-gibbosum. Pedes robusti, spinis paucis membranaceis armati.

Male. Body smooth, rather slender. Head as broad as the prothorax; vertex convex; front oval. Mandibles large. Eyes elongate-elliptical, prominent. Maxillary palpi rather stout; fifth joint about twice the length of the fourth. Antennæ long, slender. Prothorax saddle-shaped; fore border nearly straight; sides and hind border slightly rounded. Sternum not notched. Abdomen with an erect cone at the base; apical appendages lanceolate. Legs stout, moderately long; femora and tibiæ with several spines and with a few large membranous spines beneath.

This genus is nearly allied to *Valna*. The specimen described is probably in the larva state.

1. Sanabria fuscescens.

Mas. *Testacea; caput vertice vittisque duabus latis fuscis; prothorax macula fusca trigona; abdomen fuscum, basi testaceum, maculis quatuor dorsalibus luteis maculisque duabus posticis testaceis; pedes fusco fasciati.*

Male. Testaceous. Head with the vertex and a broad stripe on each side of the front brown; fore part shining. Eyes tawny. Prothorax with a triangular brown spot in front. Abdomen brown, testaceous at the base, with four luteous spots on the dorsum and with two testaceous spots on each side near the tip. Femora with one membranous subapical spine. Hind femora with two irregular and incomplete brown bands; four anterior femora with brown tips; hind tibiæ with three brown bands and with four membranous spines; four anterior tibiæ brown at the base and at the tips and with three membranous spines. Length of the body 6 lines.

a. Birmah. From Mrs. Waring's collection.

Genus 94. VELLEA.

Fœm. Corpus robustum, glabrum. Caput carinula antica sulcata postice dilatata; frons subpunctata. Oculi prominuli, fere rotundi. Palpi graciles; articulus 3us 4o duplo longior; 5us 3o longior. Antennæ longæ, gracillimæ. Prothorax disco plano punctato postice latiore sulcis duobus transversis 1o angulato, carinis lateralibus bene determinatis, lateribus margineque postico rotundatis. Mesosternum et metasternum incisa. Oviductus arcuatus, æquilatus. Pedes robusti, pubescentes, femoribus tibiisque posticis longis, illorum spinis subfoliaceis. Alæ anticæ angustæ. Alæ posticæ longiores, amplæ.

Female. Body stout, shining, smooth. Head nearly as broad as the prothorax; a furrowed keel on the fore part of the vertex, dilated hindward, separated by a transverse suture from the elongation of the front between the antennæ; front erect, thinly and minutely punctured. Eyes prominent, nearly round. Palpi slender; fourth joint about half the length of the third, which is shorter than the fifth. Antennæ long, very slender, stout and approximate at the base. Prothorax with a punctured flat disk which widens hindward and has two transverse furrows, of which the fore one is angular; lateral keels well defined; fore border straight; sides and hind border much rounded. Mesosternum and metasternum notched. Oviduct curved, of equal depth along the whole length, rounded at the tip, shorter

than the abdomen. Legs stout, pubescent; four anterior legs short; four anterior femora unarmed; four anterior tibiæ with a few minute spines in two rows; hind legs long; hind femora with two rows of spines, those towards the base minute, those towards the tip large, dilated, subfalcate; hind tibiæ with numerous spines on each of the four keels. Fore wings narrow, rather shorter than the hind wings; large areolets mostly regular; externo-medial vein forked, its fore fork joining the interno-medial vein, the latter emitting a branch at a little nearer the tip of the wing. Hind wings ample; a broad apical streak with the texture of the fore wings.

1. Vellea rosea.

Fœm. *Viridis, subtus testacea; antennæ fulvæ; abdomen testaceum; femora postica nigro spinosa; alæ anticæ maculis paucis discoidalibus nigricantibus; alæ posticæ saturate roseæ, linea transversa informi lutea, spatio exteriore diaphano, striga apicali viridi.*

Female. Grass-green. Abdomen, oviduct, sides of the head and of the thorax and fore part of the head testaceous. Antennæ tawny. Legs testaceous; hind femora about three-fourths of the length of the fore wings, their spines mostly black. Fore wings with a row of indistinct blackish spots between the interno-medial vein and the fork of the externo-medial vein. Hind wings deep rose-colour for about two-thirds of the surface from the base, this hue irregularly bordered with luteous; exterior space pellucid, with a broad apical green patch. Length of the body 12—13 lines; expansion of the fore wings 44—46 lines.

a—*c*. Para. From Mr. Stevens' collection.
d. Demerara. From Mr. Bowers' collection.

Genus 95. LEPTODERES.

Leptoderes, *Serv. Hist. Orth.* 409.

1. Leptoderes ornatipennis.

ornatipennis, *Serv. Hist. Orth.* 410—Locusta (Phylloptera) ornatipennis, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 199.

a. Java.

2. Leptoderes ornata.

Leptodera ornata, *Charp. Orth.* pl. 12.

Genus 96. SICTUNA.

Fœm. Corpus fusiforme, sat validum. Caput prothorace paullo angustius, carinula inter antennas brevi subsulcata. Oculi valde prominuli. Prothorax sellatus, transverse sulcatus, carinis lateralibus indeterminatis. Sternum incisum. Abdominis dorsum subcarinatum. Oviductus valde arcuatus, abdominis dimidio brevior. Pedes graciles, femoribus quatuor anterioribus inermibus, femoribus posticis tibiisque spinulosis. Alæ anticæ angustæ, apice rotundatæ, alis posticis perpaullo breviores.

Female. Body smooth, subfusiform, rather stout. Head a little narrower than the prothorax; with a short slightly furrowed cone between

the antennæ; front flat, upright. Eyes very prominent. Palpi slender; fifth joint of the maxillary linear, about twice the length of the fourth; third joint of the labial elongate-fusiform. Antennæ long, slender. Prothorax selliform, slightly contracted and transversely furrowed in the middle; fore border slightly excavated in the middle and slightly convex on each side; fore border hardly rounded; lateral keels indeterminate; sides with a conical outline. Sternum deeply excavated and forming two acute lobes in each segment. Abdomen slightly keeled above. Oviduct deep, much curved, furrowed on each side, about one-third of the length of the abdomen. Legs slender; four anterior femora unarmed; hind femora and four anterior tibiæ with two rows of minute spines beneath, the former incrassated towards the base; hind tibiæ with four rows of minute spines. Fore wings narrow, very much longer than the body, very little longer than the hind wings, rounded at the tips; marginal vein emitting six veinlets to the costa, which is rounded for much more than half the length from the base; scapular vein emitting nine oblique veinlets to the costa, of these the three first are forked and the four last are very short; some large areolets between the veinlets which are obliquely retracted from each side of the irregular longitudinal vein which proceeds from the interno-medial vein; some smaller areolets formed by a few oblique veinlets between the externo-medial vein and the irregular longitudinal vein which proceeds from it. Hind wings ample.

The structure of the fore wings sufficiently distinguish this genus from *Phaneroptera*.

1. SICTUNA STRIGATA.

Fœm. *Læte viridis; caput flavescente trivittatum; labrum albido marginatum; prothorax vitta, fascia maculisque quatuor pallide flavescentibus; sternum albido marginatum; abdomen guttis lateralibus flavescentibus, vittis duabus albidis ventralibus; alæ anticæ strigis obliquis pallide flavescentibus; alæ posticæ diaphanæ, striga apicali viridi.*

Female. Vivid-green. Head with a pale yellowish stripe on the vertex and with two stripes of the same hue on the front; labrum with a whitish border. Prothorax with a stripe, an irregular band and four spots pale yellowish. Lobes of the sternum with whitish borders. Abdomen with yellowish dots along each side and with two whitish stripes beneath. Fore wings with pale yellowish oblique subcostal streaks; hinder veins bordered with pale yellowish. Hind wings pellucid, green along the tip of the costa. Length of the body 8 lines; expansion of the fore wings 28 lines.

a. Venezuela. From Mr. Dyson's collection.

Genus 97. VIADANA.

Fœm. Corpus sat gracile. Caput prothoraci æquilatum, inter oculos subspinosum; frons plana, erecta. Oculi valde prominuli. Palpi graciles, setulosi; articulus 3us 4o valde longior; 5us subclavatus, 3o valde longior. Prothorax disco plano, carinis lateralibus bene determinatis, lateribus valde rotundatis, margine postico subrotundato. Sternum incisum. Cerci breves, lanceolati. Oviductus valde arcuatus, abdominis dimidio æqui-

longus. Pedes graciles, femoribus quatuor anterioribus inermibus, femoribus posticis tibiisque spinulosis. Alæ anticæ latæ, subfusiformes, alis posticis perpaullo breviores.

Female. Body rather slender. Head as broad as the prothorax, with a lobe on the inner side of each of the antennæ and a short intermediate spine; front flat, upright. Eyes very prominent. Palpi slender, setulose. Maxillary palpi more than twice the length of the labial; first and second joints short; third much longer than the fourth; fifth subclavate, much longer than the third. Third joint of the labial palpi nearly linear. Antennæ long, slender; first and second joints incrassated. Prothorax flat above; lateral keels strongly defined; fore border straight; sides much rounded; hind border slightly rounded. Sternum excavated in the middle and rounded on each side in each segment. Cerci short, lanceolate. Oviduct deep, curved, about half the length of the abdomen. Legs slender; four anterior femora unarmed; hind femora with a few very minute spines; four anterior tibiæ with two rows of minute spines; fore tibiæ dilated near the base; hind tibiæ with four rows of minute spines. Fore wings broad, subfusiform, very little shorter than the hind wings; scapular and externomedial veins contiguous, emitting on each side veins; of these three proceed rectangularly to the costa and five to the hind border, the exterior three of the latter veins are slightly oblique; spaces between the veins with veinlets, which form irregular mostly quadrilateral areolets. Hind wings broad.

1. Viadana transversa.

Fœm. *Testaceo-viridis; oculi fulvi, rufescente univittati; alæ posticæ diaphanæ, albo venosæ.*

Female. Green, partly testaceous. Eyes tawny, with a dark reddish stripe. Hind wings pellucid; veins white. Length of the body 8 lines expansion of the fore wings 24 lines.

a. Para. From Mr. Bates' collection.

2. Viadana binotata.

Mas. *Viridis, sat robusta; caput carinula furcata instructum, antice albidum; antennæ fulvæ, basi virides; abdominis cornicula duo infera longa, cylindrica, arcuata; alæ æquilongæ; alæ anticæ latiusculæ, fusiformes, macula discoiduli nigra obliqua rufescente marginata; alæ posticæ diaphanæ, plaga apicali viridi.*

Male. Green, smooth, shining, rather stout. Head with a forked keel on the fore part of the vertex; front and labrum whitish. Eyes prominent, nearly round. Antennæ tawny, green at the base. Prothorax with a flat disk which widens hindward and has a longitudinal furrow and is bordered by well-defined lateral keels; fore border hardly excavated; sides rounded; hind border slightly rounded. Sternum notched. Cerci lanceolate, curved downward; lower appendages long, cylindrical, curved upward. Legs rather slender, moderately long; femora and four anterior tibiæ with a few minute spines; hind femora incrassated for more than half the length from the base; fore tibiæ dilated at the base; hind tibiæ with four rows of minute spines. Wings of equal length. Fore wings rather broad, fusiform, with

a black oblique diffusedly reddish-bordered spot adjoining the hind side of the externo-medial vein at somewhat beyond one-third of the length of the wing; large and small areolets irregular; veins proceeding from the scapular to the costa oblique, most of them nearly parallel to each other. Hind wings pellucid; apical patch green; veins pale green. Length of the body 12 lines; expansion of the fore wings 32 lines.

a. Ega. From Mr. Bates' collection.

3. VIADANA DIGRAMMA.

Mas. *Viridis*, V. binotatæ *affinis; pedes breviores, graciliores; caput antice albidum; labrum antice fuscum; antennæ fuscæ; femora postica fusco notata; alæ anticæ latiusculæ, fusiformes, lituris pallide flavescentibus, macula nigra, guttis duabus fuscis; alæ posticæ diaphanæ, plaga apicali viridi.*

Male. Green. Head, prothorax and abdomen like those of *V. binotata* in structure. Fore part of the head whitish; labrum brown in front. Eyes brown, round, very prominent. Antennæ brown, green at the base. Legs rather shorter and more slender than those of *V. binotata;* hind femora blotched with brown on the outer side towards the base. Fore wings rather broad, fusiform, very little shorter than the hind wings, with some irregular pale yellowish marks, and with a black spot which is at somewhat beyond one-third of the length and is intersected by the interno-medial vein; two exterior brown dots on the interno-medial vein. Hind wings pellucid; apical patch green; veins white or greenish white. Length of the body 13 lines; expansion of the fore wings 30 lines.

This species differs chiefly from the preceding one in the veins of the fore wings; the oblique veins between the costa and the scapular towards the base are less regular; the transverse veins between the externo-medial vein and its branch are more numerous.

a. Santarem. From Mr. Bates' collection.

Genus 98. SORIA.

Fœm. Corpus sat gracile. Caput prothoraci æquilatum, inter oculos gibbosulum. Oculi elliptici, prominuli. Antennæ gracillimæ. Prothorax sellatus, disco plano, margine lineaque transversa ruguloso elevatis. Mesothorax et metathorax subgibbosi, ille oblique carinatus. Abdomen compressum. Oviductus arcuatus, abdominis dimidio æquilongus. Pedes sat graciles, femoribus anticis trispinosis, tibiis spinulosis. Alæ anticæ latæ, alis posticis paullo breviores.

Female. Body rather slender. Head as broad as the prothorax, with a protuberance above between the eyes, and with a little tubercle by the eye on each side of the protuberance; front nearly upright. Eyes elliptical, prominent. Antennæ long, very slender; first and second joints thick. Prothorax with two flat compartments which are bordered and divided from each other by a rugulose partly double rim; hind compartment transverse, larger than the fore one; sides perpendicular. Mesothorax and metathorax somewhat gibbous, the former emitting from its middle four oblique ridges, two in front and two behind. Abdomen compressed. Cerci lanceolate. Oviduct deep, curved, about half the length of the abdomen, its hind part

erect. Legs rather slender; fore femora with three spines, the first much smaller than the second and than the third; hind femora incrassated towards the base; four anterior tibiæ with one row of minute spines, dilated at the base, the dilatation of the fore tibiæ shorter and broader than that of the middle tibiæ; hind tibiæ with minute spines, which are mostly on the two upper rows. Fore wings broad, widening from the base to a little beyond two-thirds of the length, a little shorter than the hind wings; scapular and externo-medial veins contiguous, emitting from the hind side two longitudinal veins; of these the first is forked and its fore fork joins the second, which is undulating; the other veins and veinlets form an irregular reticulation. Hind wings broad; a large costal subapical triangular patch with the texture of the fore wings.

1. Soria contaminata.

Fœm. *Ferruginea; caput supra et antice albidum; antennæ albæ, nigro cinctæ; prothoracis discus pallide luteus, albido marginatus; abdominis dorsum albidum; pedes ex parte virides, nigro maculati et fasciati; alæ anticæ virides, venis ex parte albo punctatim marginatis, plagis tribus ferrugineis, 1a fusco marginata, 2a 3aque guttas diaphanas includentibus; alæ posticæ diaphanæ, plaga apicali viridi, striga costali fusca, macula subcostali trigona punctoque nigris.*

Female. Ferruginous. Head mostly whitish above and in front. Antennæ white, with several black rings. Disk of the prothorax pale luteous, bordered with whitish wrinkles. Mesothorax and metathorax pale yellow, the former pilose in front, the middle tubercle green. Abdomen whitish above. Four anterior femora with black spots beneath; hind femora pale green, with two black spots on the inner side, one large and near the base, the other small and near the tip; four anterior tibiæ pale green, with two black bands, the dilated part ferruginous above and with black spots beneath; fore tibiæ with a whitish callus above; hind tibiæ pale green, with five irregular blackish bands; tarsi pale green. Fore wings green; veins partly bordered with white points; three ferruginous patches; first patch basal, extending along the costa to beyond one-third of the length, bordered by an undulating brown line; second and third including some pellucid dots; second extending along the subapical part of the costa; third irregularly oval, in the exterior part of the disk. Hind wings pellucid; veins white; apical patch green, with a brown costal streak, a black subcostal triangular spot and a black point. Length of the body 8 lines; expansion of the fore wings 21 lines.

a. Brazil. Presented by J. P. G. Smith, Esq.

Genus 99. TOPANA.

Mas. Corpus sat gracile. Caput prothoraci æquilatum, inter oculos subcarinatum. Oculi prominuli. Palporum articulus 3us 4o multo longior, 5o multo brevior. Antennæ gracillimæ. Prothorax disco plano postice lutescente, carinis lateralibus bene determinatis, marginibus antico et postico rectis, lateribus valde rotundatis. Pedes graciles, femoribus quatuor anterioribus spinosis, femoribus posticis tibiisque spinulosis. Alæ anticæ latæ, subfusiformes, alis posticis paullo breviores.

Male. Body rather slender. Head as broad as the prothorax, with a short keel between the eyes. Eyes prominent. Fourth joint of the maxillary palpi much shorter than the third; fifth much longer than the third. Antennæ long, very slender; first and second joints incrassated. Disk of the prothorax flat, widening hindward; lateral keels well defined; fore border and hind border straight; sides much rounded. Abdomen rather longer than the thorax. Cerci curved. Legs slender; four anterior femora with five spines beneath; hind femora incrassated towards the base, with a few minute spines beneath on each side towards the tips; tibiæ in structure like those of *Soria*. Fore wings broad, subfusiform, a little shorter than the hind wings; scapular and externo-medial veins contiguous; the latter in addition to some transverse veinlets emits two forked longitudinal veins; the first undulating, proceeding from the middle, the second near the tip; interno-medial vein undulating and forked; areolets irregular, as they are also in the triangular subapical patch of the hind wings.

1. TOPANA MEDIA.

Mas. *Viridis; antennæ albidæ, nigro fasciatæ; prothoracis carinæ laterales ferrugineæ; abdomen testaceum; pedes ferrugineo notati; alæ anticæ macula guttisque duabus discoidalibus plagaque postica basali ferrugineis; alæ posticæ diaphanæ, plaga apicali viridi.*

Male. Green. Eyes testaceous. Antennæ whitish, with several black bands. Prothorax with ferruginous lateral keels. Abdomen testaceous. Four femora and four anterior tibiæ with some ferruginous marks. Fore wings ferruginous between the anal vein and the hind border; a large ferruginous spot between the forks of the interno-medial vein, accompanied by two ferruginous dots, the one near its inner side, the other near its outer side. Hind wings pellucid; veins white; apical patch green. Length of the body 7½ lines; expansion of the fore wings 20 lines.

a. ———?

2. TOPANA POSTICA.

Mas. *Testaceo-viridis; oculi ferruginei; antennæ albidæ, nigro cinctæ; prothorax fusco bivittatus, disco pallide luteo ferrugineo-marginato, lateribus undulatis, margine postico rotundato; abdominis dorsum carinatum; cerci valde arcuati; femora apice tibiæque basi ferruginea; alæ anticæ plaga postica plagaque basali ferrugineis; alæ posticæ diaphanæ, plaga apicali viridi fusco strigulata.*

Male. Testaceous-green. Head with a short keel between the eyes, which are ferruginous and prominent. Antennæ whitish, with some black bands. Prothorax with a pale luteous flat disk, which has a ferruginous rim; fore border almost straight; sides undulating; hind border rounded; a brown stripe on each side. Abdomen keeled above, a little longer than the thorax. Cerci much curved, extending round the lower lanceolate styles. Femora at the tips and tibiæ at the base ferruginous. Fore wings ferruginous between the anal vein and the hind border; a ferruginous patch on the hind border beyond the middle; under side with some minute brown costal marks near the tip. Hind wings pellucid; veins white; apical patch green, with some little transverse brown costal streaks. Length of the body 6 lines; expansion of the fore wings 18 lines.

Nearly allied to *T. media*, from which it differs in the structure of the prothorax.

a. Santarem. From Mr. Bates' collection.

3. Topana varia.

Fœm. *Ferruginea, gracilis; caput vertice lateribusque sordide albidis, fronte subpilosa subpunctata; oculi nigro lineati; antennæ albidæ, nigro annulatæ; prothorax disco flavo, vittis duabus marginalibus albis, carinis lateralibus valde determinatis; abdomen roseum; oviductus abdomini æquilongus; pedes albidi, femoribus apice tibiisque basi ferrugineis, femoribus posticis basi ferrugineis; alæ anticæ pallide virides, plaga maculis quinque exterioribus punctisque ferrugineis; alæ posticæ diaphanæ, apice virides.*

Female. Body ferruginous, slender, smooth, shining. Head dingy whitish above and on each side, a slight keel on the fore part of the vertex, divided by a transverse suture from the projection of the front between the antennæ; front erect, slightly pilose, thinly punctured. Eyes short-elliptical, prominent, rather large, with black stripes. Palpi rather stout; third joint much longer than the fourth, much shorter than the fifth, which is clavate. Antennæ whitish, very slender, very minutely setulose, more than twice the length of the body, with black rings. Prothorax with a flat yellow disk, which widens slightly hindward and has a slight longitudinal furrow and is bordered by a slight rim; lateral keels strongly marked; an irregular white stripe along each side; fore border nearly straight; hind border slightly rounded. Abdomen rosy red. Oviduct much curved, as long as the abdomen. Legs whitish, slightly setulose; femora towards the tips and tibiæ towards the base ferruginous; femora with two spines beneath near the tips; hind femora ferruginous and incrassated towards the base, more than half the length of the fore wings. Fore wings pale green, with some ferruginous points, a large ferruginous patch in the disk and a group of five exterior ferruginous spots also in the disk. Hind wings pellucid, somewhat longer than the fore wings, with the usual apical green space. Length of the body 4 lines; expansion of the fore wings 16 lines.

a. Para. From Mr. Bates' collection.

Genus 100. SAGONA.

Mas. Corpus glabrum, nitens, sat robustum. Caput prothorace vix angustius, carina brevi lata sulcata. Oculi elliptici, prominuli, sat parvi. Palpi graciles; articulus 3us 4o valde longior; 5us subclavatus, 4o duplo longior. Antennæ longæ, gracillimæ. Prothoracis discus planus, lineis duabus transversis lineolisque duabus arcuatis impressis. Mesosternum et metasternum incisa. Cerci lanceolati, arcuati. Cornicula duo infera brevia. Pedes longi, graciles, femoribus tibiisque spinulosis. Alæ anticæ latiusculæ, fere fusiformes, alis posticis breviores, spatio subcostali lato.

Male. Body smooth, shining, rather stout. Head almost as broad as the prothorax, with a broad short broadly furrowed keel between the antennæ; front erect. Eyes rather small, elliptical, prominent. Palpi slender; fourth joint of the maxillary much shorter than the third and about half the length of the fifth, which is subclavate. Antennæ very slender,

much longer than the body; first and second joints stout. Prothorax with a flat disk which widens hindward and has two transverse impressed lines and on each side an intermediate curved oblique line; fore border excavated; sides and hind border slightly rounded. Mesosternum and metasternum with a much rounded lobe on each side. Cerci lanceolate, curved towards each other; lower appendages short. Legs long, slender; femora and tibiæ with minute spines. Fore wings rather broad, nearly fusiform, shorter than the hind wings; space between the costa and the scapular vein broad, obliquely traversed by veins which become ramose towards the costa; forks of the branch of the externo-medial vein connected by an oblique vein; interno-medial vein twice forked, the fore branch of the second fork joining the hind fork of the branch of the externo-medial vein; large and minute areolets irregular. Hind wings ample.

1. SAGONA SUBPUNCTATA.

Mas. *Testacea; caput albidum, fusco subconspersum; palpi subrosei; antennæ nigro alboque cinctæ; prothorax fusco conspersus, fuscescente bivittatus; pedes fusco spinosi, tibiis fusco fasciatis; alæ anticæ guttis discoidalibus nigricantibus, lituris posticis fuscis; alæ posticæ diaphanæ, plaga apicali testacea nigricante conspersa.*

Male. Testaceous. Head whitish, thinly and minutely speckled with brown. Palpi with a rosy tinge. Antennæ with alternate black and white rings. Prothorax minutely speckled with brown; a brownish stripe along each lateral keel. Legs with brown spines; tibiæ with irregular brown bands; fore tarsi brown above. Fore wings shorter by one line and a half than the hind wings, with a few blackish dots in the disk and with brown marks along the hind border. Hind wings pellucid; apical patch testaceous, with blackish speckles; veins white. Length of the body 10½ lines; expansion of the fore wings 38 lines.

a. Honduras. From Mr. Dyson's collection.

Genus 101. TINZEDA.

Mas et fœm. Corpus gracile, glabrum. Caput prothorace paullo angustius, corniculo inter oculos brevi-conico porrecto. Oculi rotundi, prominuli. Palporum articulus 5us subclavatus, 4o plus duplo longior. Antennæ longæ, graciles. Prothoracis discus planus, carinis lateralibus subdeterminatis. Sternum subincisum. Cerci lanceolati, arcuati. Oviductus arcuatus, abdomini æquilongus. Pedes longi, graciles, femoribus inermibus, tibiis spinulosis. Alæ anticæ angustæ, lanceolatæ, alis posticis paullo breviores.

Male and female. Body slender, smooth, shining. Head a little narrower than the prothorax, with a short horizontal conical protuberance; front erect. Eyes round, prominent. Fourth joint of the maxillary palpi more than half the length of the third, less than half the length of the fifth, which is subclavate. Antennæ slender, much longer than the body; first and second joints stout. Prothorax with a flat disk which widens hindward and is bordered by slightly defined lateral keels; fore border and sides nearly straight; hind border rounded. Sternum very slightly notched. Cerci and lower appendages of the male lanceolate, curved upward.

Oviduct curved, as long as the abdomen. Legs long, slender; femora unarmed; hind femora slightly incrassated for half the length from the base; tibiæ with minute spines; fore tibiæ slightly dilated at the base. Fore wings narrow, lanceolate, a little shorter than the hind wings; areolets very minute and irregular; externo-medial vein emitting four oblique branches. Hind wings rather narrow, very much broader than the fore wings.

This genus has some affinity to *Conocephalus*.

1. Tinzeda eburneata.

Mas et fœm. *Viridis; caput vitta fronteque albis; antennæ pallide flavæ, basi virides; prothorax vitta plagisque duabus albis; alæ anticæ albo trivittatæ, vitta* 1*a costali nonnunquam roseo-alba; alæ posticæ diaphanæ, plaga apicali viridi.*

Male and female. Grass-green. Head with a white stripe on the vertex; fore part mostly or wholly white. Eyes tawny. Antennæ pale yellow, green at the base. Prothorax with a white stripe which is sometimes abbreviated in front; a white patch on each side. Fore wings with three white stripes, of which the first and third are abbreviated; first costal, often with a rosy tinge; second along the externo-medial vein; third along the hind border. Hind wings pellucid, shorter by one line and a half than the fore wings; apical patch green; veins white. Length of the body 7½—10½ lines; expansion of the fore wings 30—33 lines.

a, *b*. South Australia. Presented by R. Bakewell, Esq.
c. Australia. Presented by the Entomological Club.
d. Australia. From Mr. Pamplin's collection.
e. Adelaide. From Mr. Wilson's collection.
f. New South Wales. From Mr. Stevens' collection.

2. Tinzeda basalis.

Mas et fœm. *Viridis; prothorax disco subconvexo postice sublatescente, carinis lateralibus valde rotundatis, lateribus subrotundatis, margine postico valde rotundato; cerci incurvi*, maris *fere cylindrici*, fœm. *lanceolati breviores; femora postica alarum anticarum dimidio longiora; alæ æquilongæ; alæ anticæ costa ochracea, spatio costali albicante; alæ posticæ diaphanæ, striga apicali lata viridi.*

Male and female. Grass-green, slender, smooth. Head with an elevated rim about the basal joint of each antenna; vertex with a lanceolate keel in front; front thinly punctured, attenuated into a little cone between the antennæ. Eyes brown, round, prominent. Prothorax elongate; disk slightly convex, slightly widening hindward; lateral keels obsolete; fore border nearly straight; sides slightly rounded; hind border slightly elevated, much rounded. Mesosternum and metasternum slightly notched. Abdomen testaceous. Cerci curved, nearly cylindrical in the male, shorter and lanceolate in the female. Oviduct rather shorter than the abdomen. Hind femora about five-eighths of the length of the fore wings. Fore wings as long as the hind wings, very minutely reticulated; veins very distinctly marked; a white tinge along the ochraceous costa, especially towards the base; tympanum brown. Hind wings pellucid;

apical patch green; veins pale green. Length of the body 13—15 lines; expansion of the fore wings 45—48 lines.

a. Australia. From Mr. Damel's collection.
b. Australia. From Mr. Stutchbury's collection.
c. Australia.

Genus 102. CORYCUS.

Corycus, *Sauss. A. S. E. F.* 4*me Ser.* i. 487.

1. Corycus Jurinei.

Jurinei, *Sauss. A. S. E. F.* 4*me Ser.* i. 489, pl. 11, f. 4—7.

Genus 103. MICROCENTRUM.

Microcentrum, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 446.

North America.

1. Microcentrum retinervis.

Phylloptera retinervis, *Burm. Handb. Ent.* ii. 692—Phylloptera curvicauda, *Harr. Rep.* 3rd Ed. 161—Microcentrum retinervis, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 446.

a—*c*. United States. Presented by E. Doubleday, Esq.

2. Microcentrum affiliatum.

affiliatum, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 447.

United States.

3. Microcentrum thoracicum.

Locusta, &c., *Sloane, Nat. Hist. Jam.* ii. 206, pl. 236, f. 1, 2—Microcentrum thoracicum, *Scud. Journ Bost. Soc. Nat. Hist.* vii. 447.

Florida.

Steirodon thoracicum? *Serv. Rev.* 44; *Hist. Orth.* 402—Phylloptera thoracica? *Burm. Handb. Ent.* ii. 692.

South America.

The *S. thoracicum* of Serville may be distinct from the *M. thoracicum* of Scudder.

a. Jamaica. From Mr. Gosse's collection.
b, *c*. ——— ?

Mexico.

4. Microcentrum Aztecum.

Phylloptera Azteca, *Sauss. Rev. Zool.* 1859, 203.

Mexico.

5. Microcentrum Toltecum.

Phylloptera Tolteca, *Sauss. Rev. Zool.* 1859, 203.

Mexico.

Var.? Fœm. *Viride, robustum; caput prothorace angustius, verticis carinula lata sulcata æquali antice subincisa, labro antice albo; prothorax subscaber, linea longitudinali lineolisque duabus transversis impressis, margine postico subrotundato; pedes sat validi, alæ anticæ latiusculæ, pallido punctatæ, femoribus posticis duplo longioribus.*

Female. Grass-green, smooth, shining, stout. Head rather narrower than the prothorax; keel on the fore part of the vertex broad, furrowed, of equal breadth, slightly notched on the fore border; elongation of the front between the antennæ conical; labrum white in front. Eyes brown, round, prominent. Antennæ brown. Prothorax somewhat scabrous; disk flat, widening hindward, with one longitudinal and two transverse impressed lines; of the latter the first is curved and the second angular; lateral keels well defined; sides with a somewhat conical outline; hind border slightly rounded. Mesosternum and metasternum deeply notched, Oviduct not more than one-fourth of the length of the abdomen. Cerci lanceolate, straight. Legs rather stout; spines small; hind femora about half the length of the fore wings. Fore wings rather broad, very minutely reticulated, with numerous paler points, shorter by about one line and a half than the hind wings; the greatest breadth at somewhat before the middle; large areolets irregular; costa rounded, except towards the tip. Hind wings pellucid; apical patch green. Length of the body 12 lines; expansion of the fore wings 44 lines.

a. Mexico, From Mr. Glennie's collection.

6. Microcentrum Tarascum.

Phylloptera Tarasca, *Sauss. Rev. Zool.* 1859, 203.

Mexico.

West Indies.

7. Microcentrum supremum.

Fœm. *Viride aut testaceum; caput albidum, verticis carina conica truncata strias emittente, fronte inter antennas conica subincisa; prothorax carinis lateralibus postice margineque postico nigris rugosis; oviductus abdominis dimidio brevior; pedes crassi; alæ anticæ latiusculæ, femoribus posticis duplo longiores, vena anali strigaque basali nigris; alæ posticæ diaphanæ, paullo longiores, striga apicali lata viridi aut testacea.*

Female. Testaceous or green; smooth, stout. Head whitish, a little narrower than the fore border of the prothorax; vertex with a truncated conical keel, which is a little broader than the first joint of the antennæ and whose furrow emits short striæ on each side; front between the eyes conical, slightly notched on the fore border; labrum testaceous. Eyes round, prominent. Disk of the prothorax flat, widening much hindward, with one

longitudinal and with three transverse impressed lines, first transverse line interrupted; second very deeply bent hindward; lateral keels well defined hindward, where they, like the slightly rounded hind border, are black and rugose, the black hue attenuated on the middle part of the hind border; fore border very slightly excavated; sides with a conical outline. Mesosternum and metasternum whitish, the latter hindward with a slightly ascending cone. Mesosternum and metasternum very deeply notched. Cerci setose, lanceolate. Oviduct curved, about one-third of the length of the abdomen. Legs thick; spines stout; hind femora about half the length of the fore wings; hind tibiæ with a few spines on the two lower keels, which are approximate to each other. Fore wings rather broad, minutely reticulated, shorter by one line and a half than the hind wings; principal veins strongly marked; large areolets irregular; anal vein black; a black streak on the basal vein; costa much rounded, nearly straight towards the tip; interior border nearly straight, rounded towards the tip; greatest breadth of the wing before half the length. Hind wings pellucid; apical patch testaceous or green; veins very pale testaceous or green. Length of the body 21 lines; expansion of the fore wings 80 lines.

It is typical of a section in the genus which includes the largest species and to which *M. thoracicum* and *M. Aztecum* also belong. The prothorax is considerably longer than broad, which character distinguishes it from *M. Aztecum* and it does not agree with the description of *M. Toltecum*. It is nearly allied to *Steirodon thoracicum*, Serv., but the description of the latter does not fully agree with it.

a, *b*. Mexico. From Mr. Glennie's collection.
c. Oajaca. From M. Sallé's collection.
d, *e*. ——— ?

8. Microcentrum Coulonianum.

Phylloptera Couloniana, *Sauss. Rev. Zool.* 1861, 129.

Cuba.

9. Microcentrum excellens.

Fœm. *Viride; caput antice carinula lineari sulcata; prothorax disco plano scite ruguloso stria longitudinali strigaque transversa impressa, vittis duabus luteis, lateribus conicis, margine postico rotundato; mesosternum et metasternum valde incisa; oviductus brevissimus; femora quatuor anteriora bispinosa; alæ anticæ costa pallide flava; alæ posticæ diaphanæ, striga apicali lata viridi.*

Female. Grass-green, smooth, shining. Head a little narrower than the prothorax, with a furrowed keel of equal breadth on the fore part of the vertex and with a conical elongation of the front between the eyes. Eyes brown, mottled with black, prominent, nearly round. Antennæ tawny, green at the base. Prothorax with a flat finely rugulose disk, of which the fore border is one-fourth of the breadth of the hind border and which has an indistinct impressed longitudinal line and in the fore part an acutely angular transverse impressed line; a luteous stripe on each of the well-defined lateral keels; fore border straight; sides with a conical outline; hind border rounded. Mesosternum and metasternum deeply notched.

Oviduct much curved, not more than one-fourth of the length of the abdomen. Four anterior femora with two minute spines near their tips; hind femora and four anterior with two rows of minute spines; hind tibiæ with four rows, which are mostly on the two upper keels. Fore wings shorter by two lines than the hind wings, broadest at somewhat before half the length; reticulation extremely minute; costa pale yellow. Hind wings as usual. Length of the body 16 lines; expansion of the fore wings 56 lines.

It may be distinguished from *M. Toltecum* by the prothorax, which is much longer than its breadth near the hind border and is not elevated on the sides of the disk. It differs from *M. Coulonianum* by the fore wings, whose greatest breadth is before the middle, and by the hind femora, which are not more than half the length of the fore wings.

a, *b*. St. Domingo. From Mr. Tweedie's collection.

10. Microcentrum subæquale.

Fœm. *Viride; caput et prothorax luteo bivittata; caput stria longitudinali carinula anteriore sulcata, labro et frontis dente albidis; prothorax disco plano scite scabro postice sublatescente, lateribus conicis, margine postico valde rotundato; mesosternum et metasternum valde incisa; abdomen pallide luteum; oviductus brevissimus; alæ anticæ sat angustæ, alis posticis perpaullo breviores, femoribus posticis duplo longiores, costa apud medium subconvexa apicem versus recta; alæ posticæ diaphanæ, striga apicali viridi.*

Female. Grass-green, smooth, shining. Head nearly as broad as the prothorax, with an impressed longitudinal line on the vertex and with a furrowed keel on the fore part of the latter; a luteous stripe on each side continued on the lateral keels of the prothorax; labrum and elongation of the front between the eyes whitish. Eyes tawny, round, prominent. Prothorax with a flat finely scabrous disk which widens slightly hindward; fore border straight; sides with a conical outline; hind border much rounded. Mesothorax, metathorax and abdomen pale luteous. Mesosternum and metasternum deeply notched. Oviduct deep, much curved, not more than one-fourth of the length of the abdomen. Legs with the usual structure; hind femora about half the length of the fore wings. Fore wings rather narrow, shorter by half a line than the hind wings; the greatest breadth about the middle; costa slightly rounded in the middle part; exterior part straight; reticulation very minute; large areolets mostly irregular. Hind wings pellucid; veins greenish white; apical patch green. Length of the body 12 lines; expansion of the fore wings 38 lines.

The smaller size, the narrower hind part of the prothorax and the narrower fore wings distinguish it from *M. Aztecum*, *M. Toltecum* and *M. Coulonianum*.

a. St. Domingo. From Mr. Hearne's collection.

11. MICROCENTRUM DECORATUM.

Mas et fœm. *Viride, plus minusve luteo varium; caput prothorace vix angustius, verticis carinula antica longi-conica sulcata; prothorax dense punctatus, disco lineis quatuor transversis impressis, carinis lateralibus sat determinatis;* maris *abdomen coccineo univittatum; cerci arcuati, fere cylindrici; oviductus brevissimus; alæ anticæ sat angustæ, femoribus posticis duplo longiores, costa apicem versus recta; alæ posticæ diaphanæ, striga apicali lata viridi.*

Male and female. Grass-green, smooth, shining. Head, prothorax' pectus and abdomen luteous. Head with the fore part partly green, almost as broad as the prothorax; keel in front of the vertex elongate-conical, furrowed; elongation of the front between the antennæ conical. Eyes ferruginous, prominent, nearly round. Antennæ brown, green at the base. Prothorax thickly punctured, with a flat disk which increases very slightly in breadth hindward, where it is green; four transverse impressed lines; first and second lines curved; third deeply bent; fourth nearly straight; lateral keels moderately defined; fore border slightly excavated in the middle, slightly convex on each side; sides with a conical outline; hind border rounded. Mesosternum and metasternum notched. Abdomen of the male with a crimson dorsal stripe; sides mostly green. Cerci curved, nearly cylindrical. Lower appendages of the male straight. Oviduct very short. Legs slender; spines minute; hind femora as long as the hind tibiæ, about half the length of the fore wings. Fore wings rather narrow, sometimes partly luteous, very minutely reticulated, shorter by one line and a half than the hind wings, the greatest breadth at rather before half the length; costa straight beyond the middle; large areolets few, irregular, not clearly defined. Hind wings pellucid; veins pale green; apical patch green. Length of the body 10½—12 lines; expansion of the fore wings 30—36 lines.

It is distinguished from *M. subæquale* by the keel of the vertex, which is much contracted in front.

a, *b*. St. Domingo. From Mr. Tweedie's collection.

12. MICROCENTRUM DIVISUM.

Mas et fœm. *Pallide luteum* (mas.) *aut viride* (fœm.); *caput ex parte albidum, verticis carinula antica longi-conica sulcata; prothorax subtiliter punctatus, disco linea longitudinali lineolaque transversa valde flexa impressis, carinis lateralibus bene determinatis; oviductus brevissimus; cerci recti, apices versus abrupte arcuati; alæ anticæ sat angustæ, femoribus posticis duplo longiores; alæ posticæ diaphanæ, plaga apicali pallide viridi.*

Male and female. Pale luteous *(male)*, or green *(female)*, smooth, shining. Head whitish above on each side and towards the mouth, nearly as broad as the prothorax; vertex with a slight longitudinal line, its fore keel elongate-conical, furrowed; elongation of the front between the antennæ elongate-conical. Eyes ferruginous, prominent, short-elliptical. Prothorax finely punctured; disk flat, widening hindward, with two slight

impressed lines, one longitudinal, the other transverse and deeply bent; lateral keels well defined; fore border nearly straight; sides with a conical outline; hind border rounded. Mesosternum and metasternum deeply notched. Cerci straight, abruptly curved towards their tips, which are black. Legs with the usual structure; hind femora about half the length of the fore wings. Fore wings rather narrow, very minutely reticulated, shorter by one line than the hind wings; the greatest breadth at half the length; large areolets irregular, not conspicuous. Hind wings pellucid; veins greenish white; apical patch pale luteous. Length of the body 12 lines; expansion of the fore wings 36 lines.

It may be distinguished from the three Mexican species by the prothorax, which is finely punctured and has not elevated borders. It is between *M. subæquale* and *M. decoratum* as regards the keel of the vertex, which is less equal in breadth than that of *M. subæquale* and less abruptly attenuated than that of *M. decoratum*, and it differs from both these species in having a longer oviduct. It also differs from *M. decoratum* in the shape of the cerci.

a, *b*. Jamaica. From Mr. Gosse's collection.

13. Microcentrum planum.

Fœm. *Viride; verticis carina brevis, conica, sulcata; labrum albidum; prothoracis discus linea longitudinali lineisque duabus transversis impressis, carinis lateralibus pallidioribus; oviductus abdominis dimidio brevior; femora postica alarum anticarum dimidio valde longiora; alæ anticæ fusiformes; alæ posticæ diaphanæ, striga apicali lata viridi.*

Female. Grass-green, smooth, shining. Head nearly as broad as the prothorax; vertex with a short conical furrowed keel; front whitish about the fore border, forming a cone between the antennæ; labrum whitish. Eyes tawny, prominent, nearly round. Disk of the prothorax flat, slightly widening hindward, with a longitudinal impressed line and with two transverse impressed lines, of which the fore one is much more deeply angular than the hind one; lateral keels pale green, well defined; fore border very slightly excavated; sides and hind border rounded. Mesosternum more deeply notched than the metasternum. Oviduct deep, much curved, less than half the length of the abdomen. Legs slender; spines minute; hind femora much more than half the length of the fore wings. Fore wings fusiform, minutely reticulated; costa less rounded than the interior border; large areolets irregular. Hind wings pellucid; veins pale; apical patch green. Length of the body 7½ lines; expansion of the fore wings 28 lines.

The form of the fore wings does not agree with that of any of the species of this genus described by De Saussure.

a. Santarem. From Mr. Bates' collection.

Genus 104. DIPLOPHYLLUS.

Phylloptera (Diplophyllus), *Sauss. Rev. Zool.* 1859, 202.

1. Diplophyllus myrtifolia.

Locusta myrtifolia, *Linn. Syst. Nat.* ii. 696. *Fabr. Ent. Syst.* ii. 34. *Deg. Ins.* iii. pl. 38, f. 4. *Drury, Ins.* iii. 447, pl. 38, f. 4—Phylloptera myrtifolia, *Burm. Handb. Ent.* ii. 693.

Brazil.

2. Diplophyllus pisifolia.

Phylloptera pisifolia, *Sauss. Rev. Zool.* 1859, 202.

Mexico.

3. Diplophyllus angustifolia.

Phylloptera angustifolia, *Sauss. Rev. Zool.* 1859, 202.

Bahia.

4. Diplophyllus ensifolia.

Phylloptera ensifolia, *Sauss. Rev. Zool.* 1859, 202.

Bahia.

5. Diplophyllus erinifolia.

Phylloptera erinifolia, *Sauss. Rev. Zool.* 1859, 202.

Bahia.

6. Diplophyllus derodifolia.

Phylloptera derodifolia, *Sauss. Rev. Zool.* 1859, 203.

Bahia.

Group n.

Fæm. Corpus robustum verticis carina lanceolata sulcata, antennarum articulo 1o valde angustior. Prothorax disco plano postice latescente linea longitudinali lineisque tribus transversis impressis, carinis lateralibus bene determinatis, margine postico rotundato. Oviductus brevissimus. Tibiæ posticæ spinis sat validis. Alæ anticæ fusiformes, alis posticis longiores, spatio subcostali latissimo.

Female. Body stout, smooth, shining. Head as broad as the fore border of the prothorax; keel of the vertex between the antennæ lanceolate, furrowed, much narrower than the first joint of the antennæ; front with a lanceolate keeled elongation between the antennæ. Eyes round, prominent. Disk of the prothorax flat, widening hindward, with one longitudinal and three transverse impressed lines, first and second of the latter angular; lateral keels well defined; fore border slightly excavated; sides and hind border rounded. Mesosternum and metasternum rather deeply notched. Oviduct curved, very deep, about one-fourth of the length of the abdomen. Legs hardly stout; spines of the hind tibiæ rather long and stout. Fore wings fusiform, minutely reticulated; costa most rounded towards the base; interior border most rounded towards the tip; space between the scapular vein and the costa very broad; scapular emitting several oblique ramose veins to the costa. Hind wings shorter by one line and a half than the fore wings.

The structure of the fore wings has much resemblance to that of *Phylloptera cassinæfolia*, but in the latter the scapular vein is still more remote from the costa and divides the breadth of the wing equally.

7. Diplophyllus strigipennis.

Fœm. *Viridis; caput antice albidum, labro albo; antennæ fuscæ, basi virides; prothoracis carinæ laterales flavæ; alæ anticæ vitta discoidali e plagis obliquis ferrugineis; alæ posticæ diaphanæ, striga apicali lata viridi.*

Female. Grass-green. Fore part of the head whitish; labrum white. Eyes and antennæ brown, the latter pale green at the base. Lateral keels of the prothorax yellow. Abdomen testaceous. Fore wings with some oblique ferruginous blotches or irregular streaks forming a stripe in the disk; veins partly very pale green. Hind wings pellucid; apical patch pale green; veins white. Length of the body 13½ lines; expansion of the fore wings 40 lines.

a. ——— ?

Genus 105. PHYLLOPTERA.

Gryllus (Tettigonia), *Linn.*, *Stoll.*—Locusta, *Fabr.*—Phylloptera, *Serv. Rev.* 54; *Hist. Orth.* 402. *Burm. Handb. Ent.* ii. 691—Phaneroptera, *Brullé, Hist. Nat.* ix.

North America.

1. Phylloptera myrtifolia.

myrtifolia, *Serv. Ann. Sci. Nat.* xxii. 142. *Gosse, Can. Nat.* 278.

This is not the *myrtifolia* of Linnæus nor of Stoll.

Canada.

a, *b*. Nova Scotia. From Lieut. Redman's collection.

2. Phylloptera punctum-album.

punctum-album, *Serv. Hist. Orth.* 407.

Buenos Ayres.

3. Phylloptera viridicata.

viridicata, *Serv. Hist. Orth.* 407.

Brazil.

4. Phylloptera marginella.

marginella, *Serv. Hist. Orth.* 405.

Brazil.

5. Phylloptera lanceolata.

lanceolata, *Burm. Handb. Ent.* ii. 692.

Brazil.

6. Phylloptera ovalifolia.

ovalifolia, *Burm. Handb. Ent.* ii. 693.

South America.

7. Phylloptera? cassinæfolia.

Locusta cassinæfolia, *Enc. Meth.* x. 343—Phylloptera cassinæfolia, *Serv. Rev.* 46; *Hist. Orth.* 406, pl. 9, f. 3.

Brazil.

8. Phylloptera Zetterstedti.

Zetterstedti, *Stal, Eug. Resa*, 322.

Punà, South America.

9. Phylloptera magnifolia.

Mas et fœm. *Viridis, robustus; verticis carina alba, sulcata, antice truncata; frons nonnunquam rufescente vittata; labrum album; prothoracis discus carinis lateralibus bene determinatis, margine postico nigro subrotundato; oviductus brevissimus; pedes validi, femoribus posticis alarum anticarum dimidio longioribus, tibiis posticis subdilatatis; alæ anticæ fusiformes, punctis apud venas nigris; alæ posticæ diaphanæ, longiores, striga apicali lata viridi.*

Male and female. Grass-green, partly testaceous, stout, smooth, shining. Head more or less white about the mouth, narrower than the prothorax; vertex with a white furrowed keel, which is as broad as the first joint of the antennæ and is truncated on the fore border; front sometimes with a reddish stripe, its fore part produced into a cone between the antennæ. Eyes brown, nearly round, very prominent. Prothorax with a flat disk, which widens towards the hind border and has a longitudinal impressed line and two transverse impressed lines; of the latter the hinder one is deeply angular; lateral keels well defined; fore border hardly excavated; sides with a conical outline; hind border slightly rounded, black, which hue extends along the adjoining part of each lateral keel. Mesosternum and metasternum rather deeply notched. Oviduct deep, curved, about one-fourth of the length of the abdomen. Legs thick; spines minute; hind femora of the female three-fifths of the length of the fore wings, longer in the male; hind tibiæ slightly dilated, as long as the hind femora. Fore wings fusiform, shorter by one line than the hind wings, minutely reticulated, with black points along the principal veins; large areolets irregular; costa rounded, except towards the tip; interior border straight, obliquely and slightly truncated towards the tip. Hind wings pellucid; veins white; apical patch green. Length of the body 15—17 lines; expansion of the fore wings 60—62 lines.

This may be the *P. myrtifolia* of Linnæus and of Fabricius, but is not the *myrtifolia* of Stoll.

a, b. Brazil.
c. Guayaquil. Presented by Dr. Hooker.

10. Phylloptera contracta.

Fœm. *Viridis aut testacea; caput utrinque et antice albidum, verticis carina sulcata postice dilatata antice obtusa, fronte inter antennas longi-conica; prothoracis discus rugulosus, postice vix latior, carinis lateralibus rotundatis; mesosternum et metasternum subincisa; oviductus abdomine paullo brevior; pedes graciles; alæ anticæ fusiformes, femoribus posticis sat longiores; alæ posticæ diaphanæ, paullo longiores, striga apicali lata viridi.*

Female. Green or testaceous, narrow, smooth, shining. Head a little narrower than the prothorax, with a whitish tinge above and on each side; keel of the vertex furrowed, dilated hindward, obtuse on the fore border; elongation of the front between the antennæ elongate-conical. Eyes brown, round, prominent. Palpi very slender; fourth joint about half the length of the third, less than one-third of the length of the fifth. Prothorax rugulose; disk flat, hardly widening hindward, with an angular transverse impressed line; lateral keels rounded; fore border and sides very slightly excavated in the middle; hind border slightly rounded. Mesosternum and metasternum slightly notched. Oviduct curved, a little shorter than the abdomen. Legs slender; spines minute; hind femora much more than half the length of the fore wings. Fore wings fusiform, very minutely reticulated, shorter by one line and a half than the hind wings; large areolets irregular, their veins not prominent. Hind wings pellucid; veins pale green; apical patch green. Length of the body 10 lines; expansion of the fore wings 30 lines.

The outline of the lateral lobes of the prothorax and the shape of the fore wings distinguish this species from *P. Zetterstedti.*

a. Brazil. Presented by J. P. G. Smith, Esq.

South Africa.

11. Phylloptera proteifolia.

Phanoptera proteifolia, *Burm. Handb. Ent.* ii. 692.

a—c. South Africa. Presented by Sir A. Smith.
d, e. South Africa. Presented by R. Trimen, Esq.
f—j. Natal. From M. Gueinzius' collection.

12. Phylloptera Cereris.

Cereris, *Stal, Ofv. K. V. Ak. Forh.* 1856, 170.

Cape. Natal.

13. Phylloptera fasciata.

Fœm. *Viridis, plus minusve testacea aut lutea; caput carina inter antennas albida lanceolata sulcata antennarum articulo 1o angustiore fronte inter antennas conica, labro albido; oculi rufescentes, nigro vittati; prothorax nigro unifasciatus, carinis lateralibus vix determinatis; mesosternum et metasternum subincisa; oviductus brevissimus; pedes longi, graciles; alæ anticæ latiusculæ, femoribus posticis vix duplo longiores, costa valde convexa, margine postico subangulato; alæ posticæ diaphanæ, paullo longiores, striga apicali lata viridi.*

Female. Pale green. Body mostly testaceous or luteous. Head a little narrower than the fore border of the prothorax; keel of the vertex whitish, lanceolate, furrowed, a little narrower than the basal joint of the antennæ; front whitish on the fore part, conical between the antennæ, whose sockets have an elevated border in front: labrum whitish. Eyes reddish, elliptical, very prominent, with several black stripes between a black basal ringlet. Disk of the prothorax flat, with two transverse impressed lines and with a posterior slender black band; second transverse line deeply angular; lateral keels hardly defined; fore border nearly straight; sides with a somewhat conical outline; hind border rounded. Mesosternum and metasternum slightly notched. Oviduct hardly one-fourth of the length of the abdomen. Legs long, slender; spines minute; hind femora full half the length of the fore wings; hind tibiæ quadrilateral, the lowest side very narrow. Fore wings rather broad, very minutely reticulated; larger areolets irregular, very slightly marked; interno-medial vein and forks of the branch of the externo-medial vein somewhat undulating; costa much rounded; interior border straight, forming a rounded and obtuse angle near the tip, where the wing is thus obliquely truncated. Hind wings pellucid, longer by one line and a half than the fore wings; apical patch pale green; veins greenish white. Length of the body 15 lines; expansion of the fore wings 62 lines.

a. Gambia. From Mr. Rendall's collection.

14. Phylloptera natalensis.

Fœm. *Viridis, ex parte testacea aut lutea; verticis carina lanceolata, sulcata, antennarum articulo 1o angustior; prothorax linea longitudinali lineisque tribus transversis impressis, carinis lateralibus subdeterminatis, lateribus fere rectis, margine postico subrotundato; cerci recti, lanceolati; femora postica alarum anticarum dimidio longiora; alæ æquilongæ; alæ anticæ angustæ, costa subconvexa, margine interiore fere recto; alæ posticæ diaphanæ, striga apicali lata viridi.*

Female. Green, smooth, partly testaceous or luteous. Head as broad as the fore border of the prothorax; keel of the vertex lanceolate, furrowed, rather narrower than the first joint of the antennæ; elongation of the front between the antennæ lanceolate; sockets of the antennæ bordered by a rim. Eyes tawny, elliptical, prominent. Disk of the prothorax flat, widening hindward; one longitudinal and three transverse lines slightly impressed, the second of the latter acutely angular; lateral keels slightly defined; fore border slightly excavated; sides nearly straight; hind border slightly rounded. Mesosternum and metasternum rather deeply notched. Cerci straight, lanceolate. Oviduct about one-fourth of the length of the abdomen. Hind femora about two-thirds of the length of the fore wings. Fore wings narrow, as long as the hind wings, minutely reticulated, broadest beyond the middle; larger areolets irregular; costa slightly round; interior border nearly straight. Hind wings pellucid; apical patch green; veins pale green. Length of the body 10½ lines; expansion of the fore wings 29 lines.

The fore wings of *P. Cereris* are longer than the hind wings, which character distinguishes it from this species.

a. Natal. From M. Gueinzius' collection.

South Asia.

15. Phylloptera spectabilis.

Mas. *Viridis aut testacea; caput carina lanceolata sulcata antennarum articulo 1o multo angustiore, fronte albida inter antennas conica, labro albo; protharacis discus subconvexus, carinis lateralibus nullis; mesosternum et metasternum subincisa; lamina supra-analis subexcavata; lamina subgenitalis stylis biarticulatis; pedes longi, vix robusti; alæ anticæ angustæ, costa subconvexa, margine postico fere recto apicem versus rotundato; alæ posticæ diaphanæ, paullo longiores, striga apicali lata viridi.*

Male.—Green or testaceous, smooth. Head a little narrower than the fore border of the prothorax; vertex with a lanceolate furrowed keel, which is much narrower than the first joint of the antennæ; front whitish, conical between the antennæ, whose sockets have an elevated rim in front; labrum white. Eyes ferruginous, elliptical, prominent. Prothorax with a slightly convex disk, which has a transverse impressed much hindward bent middle line; lateral keels obsolete; fore border very slightly excavated; sides slightly rounded; hind border more rounded. Mesosternum and metasternum slightly notched. Abdomen ferruginous beneath; supra-anal lamina slightly excavated on the hind border; styles of the subgenital lamina biarticulate; second joint very small. Cerci setulose, very thick, emitting a rounded protuberance on the outer side. Legs long, hardly stout; hind femora incrassated along half the length, a little more than five-eighths of the length of the four wings; hind tibiæ with rather long spines on the fore keels. Fore wings narrow, minutely reticulated, shorter by one line and a half than the hind wings; costa slightly rounded; interior border nearly straight, rounded towards the tip; veins distinctly marked; large areolets between the externo-medial vein and the interno-medial vein regular, quadrilateral; veins between the scapular and the costa mostly parallel to each other. Hind wings pellucid; apical patch green; veins very pale green. Length of the body 13 lines; expansion of the fore wings 48 lines.

a. Ceylon. From the Rev. J. Wenham's collection.

Australasia.

16. Phylloptera? chloris.

Locusta (Phaneroptera) chloris, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 192.

Java.

17. Phylloptera? poæfolia.

Locusta (Phaneroptera) poæfolia, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 192.

Java.

18. PHYLLOPTERA? PARUMPUNCTATA.

Locusta (Phaneroptera) parumpunctata, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 192.

De Haan suggests that this species may be the *thymifolia* of Fabricius.

Java.

19. PHYLLOPTERA CRASSIFOLIA.

Locusta (Phylloptera) crassifolia, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 197.

Java.

20. PHYLLOPTERA NITIDIFOLIA.

Locusta (Phylloptera) nitidifolia, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 198.

Java.

21. PHYLLOPTERA FORSTENII.

Locusta (Phylloptera) Forstenii, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 198.

Celebes.

22. PHYLLOPTERA RETIFOLIA.

Locusta (Phylloptera) retifolia, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 198.

Java.

23. PHYLLOPTERA CARINATA.

Locusta (Phylloptera) carinata, *Haan*, *Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 199—Phaneroptera carinata, *Stal*, *Eug. Res.* 321.

Java.

24. PHYLLOPTERA?? SANGUINOLENTA.

sanguinolenta, *Westw. Orient. Ent.* pl. 25, f. 3.

Sumatra.

25. PHYLLOPTERA?? OCTOMACULATA.

octomaculata, *Westw. Orient. Ent.* pl. 25, f. 4.

Sumatra.

Genus 106. OROPHUS.

Phylloptera, p., *Serv.*, *&c.*— Phylloptera (Orophus), *Sauss. Rev. Zool.* 1859, 204.

North America.

1. OROPHUS OBLONGIFOLIA.

Locusta oblongifolia. *Deg. Ins.* iii. 445, pl. 38, f. 2—Gryllus oblongifolius, *Han. Cat. Ins. Mad.* 56—Phylloptera oblongifolia, *Harris*, *Rep.* 3*rd Ed.* 159. *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 445.

a—c. United States. Presented by F. Walker, Esq.

2. Orophus rotundifolia.

Phylloptera oblongifolia, *Harris, Rep. 3rd Ed.* f. 75—Phylloptera rotundifolia, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 445, f. 4.

a, b. United States. Presented by F. Walker, Esq.

3. Orophus caudatus.

Phylloptera caudata, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 445.

Texas.

4. Orophus salicifolia.

Phylloptera (Orophus) salicifolia, *Sauss. Rev. Zool.* 1859, 204.

Carolina.

5. Orophus rhombifolia.

Phylloptera (Orophus) rhombifolia, *Sauss. Rev. Zool.* 1859, 204.

Carolina.

6. Orophus laurifolia.

Gryllus (Tettigonia) laurifolius, *Linn. Mus. Lud.* 126; *Syst. Nat.* ii. 695—Gryllus (Tettigonia) laurifolia, *Stoll, Saut. et Gryll.* pl. 60, f. 21; pl. 17, f. 62—Locusta laurifolia, *Fabr. Ent. Syst.* ii. 34—Phylloptera laurifolia, *Serv. Hist. Orth.* 404—*Burm. Handb. Ent.* ii. 693—Locusta (Phylloptera) laurifolia, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 197.

a. United States. Presented by F. Walker, Esq.
b. South America.
c. ———? Presented by J. G. Children, Esq.
d, e. ———?

Mexico.

7. Orophus Mexicanus.

Phylloptera Mexicana, *Sauss. Rev. Zool.* 1859, 204.

Mexico.

8. Orophus Otomarius.

Phylloptera Otomaria, *Sauss. Rev. Zool.* 1859, 204.

Mexico.

9. Orophus Totonacus.

Phylloptera (Orophus) Totonaca, *Sauss. Rev. Zool.* 1859, 204.

Mexico.

10. Orophus Huastecus.

Phylloptera (Orophus) Huasteca, *Sauss. Rev. Zool.* 1859, 205.

Mexico.

11. Orophus tessellatus.

Phylloptera (Orophus) tessellata, *Sauss. Rev. Zool.* 1861, 129.

Mexico.

12. Orophus notatus.

Mas. *Cervinus; caput postice fusco bimaculatatum, carina subquadrata disco subconcavo; antennæ nigro annulatæ; prothorax disco plano postice latescente, carinis lateralibus fuscis bene determinatis; pedes graciles, subspinosi, femoribus posticis alarum anticarum dimidio longioribus; alæ anticæ nigro guttatæ et biplagiatæ, costa subrotundata, margine interiore valde rotundato; alæ posticæ longiores, diaphanæ, apice cervinæ nigro conspersæ.*

Male. Fawn-colour, slender. Head as broad as the fore border of the prothorax, with a brown spot on each side behind the eye; keel of the vertex shallow, subquadrate, very little longer than broad, slightly concave in the disk, broader than the first joint of the antennæ, contiguous to the subquadrate part of the front between the sockets of the antennæ. Eyes elliptical, prominent. Antennæ with several black rings. Prothorax elongate; disk flat, widening hindward, with a slightly impressed longitudinal line which emits on each side a branch extending obliquely forward; lateral keels brown, sharply defined; fore border concave; lateral lobes elongate, slightly rounded; hind border rounded. Metasternum much more deeply notched than the mesosternum. Supra-anal lamina short. Cerci stout, lanceolate, curved. Subgenital lamina with two slender much-curved styles which have black tips. Legs slender; spines minute; hind femora incrassated for half the length from the base, about two-thirds of the length of the fore wings; hind tibiæ with four rows of spines. Fore wings rather broad, rounded at the tips, with several scattered black dots and two small black patches; the latter in the middle, one beyond the other; costa slightly rounded; interior border much rounded; the greatest breadth at somewhat beyond the middle, rather more than one-third of the length; veins irregularly ramified, forming irregular areolets of various size; scapular vein slightly diverging from the externo-medial beyond the middle. Hind wings pellucid, longer by three lines than the fore wings; veins testaceous; apical part fawn-colour, with black dots. Length of the body 12 lines; expansion of the fore wings 38 lines.

a. Oajaca. From M. Sallé's collection.

West Indies.

13. Orophus vigens.

Fœm. *Viridis; vertex inter antennas latus, planus, marginibus lateralibus elevatis; frons inter antennas incisa; prothorax dense punctatus, disco postice sublatescente lineis duabus transversis impressis, carinis lateralibus albidis acutis; abdomen testaceum; oviductus brevissimus; alæ anticæ latæ, femoribus posticis plus duplo longiores, costa usque ad apicem convexa; alæ posticæ diaphanæ, striga apicali lata viridi.*

Female. Grass-green, shining. Head almost as broad as the prothorax; vertex broad, flat and with an elevated border on each side between the antennæ; elongation of the front between the antennæ

notched; fore border of the front, a patch on each side by the eye and labrum white. Eyes tawny, mottled with blackish, short-elliptical, prominent. Prothorax thickly punctured; disk flat, with two indistinct transverse impressed lines, slightly increasing in breadth from the slightly excavated fore border to the rounded hind border; lateral keels whitish, sharply defined; sides with a rounded outline. Mesosternum and metasternum deeply notched. Abdomen and oviduct testaceous, the latter about one-fourth of the length of the former. Legs slender; spines minute; hind femora a little shorter than the hind tibiæ, less than half the length of the fore wings. Fore wings broad, very minutely reticulated, shorter by full one line and a half than the hind wings; the greatest breadth in the middle; costa rounded to the tips; large areolets few, irregular. Hind wings pellucid; veins greenish white; costal patch green. Length of the body 9 lines; expansion of the fore wings 36 lines.

The hind femora are shorter in proportion to the fore wings than those of *O. Mexicanus*, *rhombifolia*, *Huastecus* and *tessellatus*, and longer than those of *O. salvifolia*. The lateral keels of the prothorax are more sharply defined than those of *O. Otomius*, *salicifolia* and *Totonacus*.

a. Jamaica. From Mr. Gosse's collection.

South America.

14. Orophus salvifolia.

Phylloptera (Orophus) salvifolia, *Sauss. Rev. Zool.* 1859, 204.

Bahia.

15. Orophus decisus.

Mas. *Viridis; caput carina subsulcata antennarum articulo 1o duplo latiore, fronte inter antennas latiuscula uniguttata, labro albo; prothorax subrugulosus, carinis lateralibus albis distinctissimis; mesosternum et metasternum subincisa; pedes graciles; alæ anticæ fusiformes, latiusculæ, femoribus posticis sat longiores, costa convexa, margine postico minus rotundato; alæ posticæ diaphanæ, longiores, striga apicali lata viridi.*

Male. Grass-green, smooth, shining. Head a little narrower than the prothorax; keel of the vertex shallow, much broader than long, about twice the breadth of the first joint of the antennæ, with a shallow furrow, its fore border straight; front between the antennæ as broad as the keel of the vertex, with a pale excavated dot in its disk; labrum mostly white. Eyes tawny, elliptical, prominent. Prothorax very slightly rugulose, with a flat disk which widens much hindward and has a longitudinal impressed line and a deeply angular transverse line; lateral keels white, sharply defined; fore border slightly excavated; sides and hind border rounded. Mesosternum and metasternum very slightly excavated. Cerci stout, lanceolate, curved towards each other; styles lanceolate, short, slender. Legs slender; spines minute; hind legs long; hind femora more than two-thirds of the length of the fore wings. Fore wings broad, fusiform, shorter by two lines than the hind wings; minutely reticulated, large areolets numerous, irregular; costa more rounded than the interior border. Hind

wings pellucid; veins pale green; apical patch green. Length of the body 10 lines; expansion of the fore wings 35 lines.

It nearly agrees with *O. Mexicanus* in the comparative length of the hind femora and the fore wings, but is larger and has two white stripes on the prothorax. The acute keels of the prothorax distinguish it from *O. Huastecus*.

a. Honduras. From Mr. Dyson's collection.

16. Orophus planiceps.

Mas. *Virides, sat robustus; vertex latissimus, non carinatus, inter antennas albo strigatus: labrum album; prothorax disco ruguloso fere plano, carinis lateralibus valde rotundatis; cerci arcuati, pilosissimi, fere cylindrici; pedes graciles; alæ anticæ latiusculæ, albido punctatæ; alæ posticæ diaphanæ, vix longiores, striga apicali lata viridi.*

Male. Green, smooth, shining, rather stout. Head as broad as the prothorax; vertex very broad and not keeled between the antennæ, where there is a short white longitudinal streak; front between the eyes as broad as the fore part of the vertex, with which it is closely joined; labrum white. Eyes prominent, nearly round. Prothorax rugulose; disk nearly flat, not widening hindward; lateral keels much rounded; fore border undulating; sides with a conical outline; hind border slightly rounded. Mesosternum more deeply excavated than the metasternum. Cerci curved, very pilose, nearly cylindrical. Styles short, lanceolate. Legs slender; spines minute; hind femora about half the length of the fore wings. Fore wings fusiform, rather broad, minutely reticulated, with numerous whitish points; large areolets not apparent, except towards the base and along the costa; branches of the externo-medial vein much curved. Hind wings pellucid; veins white; apical patch green. Length of the body 10½ lines; expansion of the fore wings 36 lines.

It agrees with *O. Otomius*, *salicifolia* and *Totonacus* in the comparative length of the hind femora and fore wings; the latter are hardly longer than the hind wings.

a. Para. Presented by G. Graham, Esq.

South Africa.

17. Orophus? gramineus.

Phylloptera graminea, *Serv. Hist. Orth.* 405.

Cape.

18. Orophus strangulatus.

Fœm. *Viridis, gracilis; vertex inter antennas perparum sulcatus, articulo 1o multo latior, antice truncatus; labrum album; oculi fusiformes; prothorax subrugulosus, disco postice vix latescente, carinis lateralibus bene determinatis; mesosternum et metasternum valde incisa; oviductus abdominis dimidio brevior; pedes graciles; alæ anticæ fusiformes, femoribus posticis duplo longiores, costa perparum rotundata, margine postico convexiore; alæ posticæ diaphanæ, longiores, striga apicali lata viridi.*

Female. Green, slender, smooth, shining. Head as broad as the prothorax; vertex between the antennæ very slightly furrowed, much broader than the first joint of the latter, truncated on the fore border, where it is contiguous to the equally broad and obtuse elongated part of the front; labrum mostly white. Eyes fusiform, prominent. Antennæ brown, green at the base. Prothorax slightly rugulose, elongate, with a flat disk which hardly widens hindward; lateral keels sharply defined; fore border slightly exeavated; sides rounded; hind border slightly rounded. Mesosternum and metasternum deeply notched. Oviduct deep, much curved, less than half the length of the abdomen. Legs slender; femora setulose; hind femora half the length of the fore wings; hind tibiæ with rather long spines, a little longer than the hind femora. Fore wings fusiform, minutely reticulated, shorter by one line and a half than the hind wings; costa very slightly convex; interior border more rounded; large areolets mostly irregular. Hind wings pellucid; apical patch green. Length of the body 8 lines; expansion of the fore wings 31 lines.

The yellow stripes on the prothorax of *O. gramineus* distinguish it from this and the following species.

a. Sierra Leone. From Mr. Foxcroft's collection.
b. West Africa. From Mr. Fraser's collection.

19. Orophus flavescens.

Fœm. *Pallide luteus; vertex inter antennas subsulcatus, antice truncatus, articulo 1o duplo latior; labrum album; oculi fusiformes; prothorax scite rugulosus, carinis lateralibus distinctissimis; mesosternum et metasternum valde incisa; oviductus abdomini æquilongus; pedes graciles; alæ anticæ latæ, femoribus posticis plus duplo longiores, costa perparum convexa, margine postico valde rotundato; alæ posticæ diaphanæ, striga apicali lata viridi.*

Female. Pale luteous, smooth, shining. Head a little narrower than the prothorax; vertex between the antennæ twice as broad as the first joint of the latter, slightly furrowed, truncated on the fore border, where it is contiguous to the equally broad part of the front; labrum white. Eyes tawny, fusiform, prominent. Prothorax finely rugulose; disk flat, slightly widening hindward, with three indistinct transverse impressed lines; lateral keels sharply defined; fore border slightly excavated; sides with a conical outline; hind border slightly rounded. Mesosternmum and metasternum deeply notched. Oviduct deep, curved, as long as the abdomen. Legs slender; spines small; hind femora rather less than half the length of the fore wings. Fore wings broad, minutely reticulated, shorter by one line than the hind wings; costa very slightly rounded; interior border very convex. Hind wings pellucid; apical patch green. Length of the body 10½ lines; expansion of the fore wings 36 lines.

a. Gambia. From Mr. Rendall's collection.

20. Orophus compressus.

Mas. *Albido-testaceus; verticis carina fere plana, vix sulcata, antice paullo angustior et subincisa; frons inter antennas quadrata disco impresso; prothorax punctatus, disco plano postice latescente et ferrugineo, carinis lateralibus bene determinatis, lobis lateralibus fusco*

unistrigatis; pedes longi, graciles, spinulosi, femoribus posticis alarum anticarum dimidio paullo longioribus; alæ anticæ ferrugineæ, angustæ, plus triplo longiore quam latæ, costa subrotundata margine postico dimidio basali convexo; alæ posticæ diaphanæ, apice ferrugineæ et reticulatæ.

Male. Whitish testaceous. Head as broad as the fore border of the prothorax; keel of the vertex nearly flat, very slightly furrowed, a little narrower in front, where it is slightly notched and is broader than the first joint of the antennæ; front between the sockets of the antennæ quadrate and with a slightly excavated disk. Eyes tawny, prominent, elliptical. Prothorax punctured; disk flat, slightly widening hindward, with two impressed lines, one longitudinal, the other transverse, both indistinct, the hind part ferruginous; lateral keels well defined; fore border straight; lateral lobes elongated, rounded, with a brown streak on each by the fore border; hind border rounded. Legs testaceous, long, slender; spurs minute, those on the femora rudimentary; hind femora a little more than half the length of the fore wings. Fore wings ferruginous, narrow, lanceolate, minutely reticulated, rounded at the tips, more than thrice as long as broad, their greatest breadth at about one-third of the length; costa slightly rounded; interior border rounded from the base to the middle; transverse veins between the scapular and the costa ramifying irregularly; scapular and externo-medial diverging slightly from each and ramifying beyond the middle; areolets rather large, mostly irregular; tympanum of the left with a black spot in the disk. Hind wings pellucid, longer than the fore wings by nearly three lines; veins pale; apical patch ferruginous, minutely reticulated. Length of the body 10½ lines; expansion of the fore wings 36 lines.

a. South Africa. Presented by Sir A. Smith.

Genus 107. LOBOPHYLLUS.

Phylloptera (Lobophyllus), *Sauss. Rev. Zool.* 1859, 205.

1. Lobophyllus legumen.

Phylloptera (Lobophyllus) legumen, *Sauss. Rev. Zool.* 1859, 205.

America.

Genus 108. PETALOPTERA.

Phylloptera (Petaloptera), *Sauss. Rev. Zool.* 1859, 205.

1. Petaloptera Zendala.

Phylloptera (Petaloptera) Zendala, *Sauss. Rev. Zool.* 1859, 205.

Mexico.

Genus 109. PYCNOPALPA.

Phylloptera (Pycnopalpa), *Serv. Hist. Orth.* 408.

1. Pycnopalpa bicordata.

Locusta bicordata, *Enc. Méth.* x. 340—Phylloptera (Pycnopalpa) bicordata, *Serv. Rev.* 46; *Hist. Orth.* 408.

Brazil.

Genus 110. TORBIA.

Mas et fœm. Corpus robustum. Capitis carina lanceolata sulcata, antennarum articulo 1o æquilata; frons convexa, inter antennas lanceolata. Oculi rotundi, valde prominuli. Palporum articulus 5us clavatus, 4o duplo longior. Prothoracis discus planus, postice sublatescens; carinæ laterales bene determinatæ; margo posticus subrotundatus, subelevatus. Mesosternum et metasternum valde incisa. Pedes longi, sat graciles, spinosuli; femora postica alarum anticarum dimidio longiora. Alæ anticæ lanceolatæ, subtilissime reticulatæ, venulis transversis plurimis, vena externo-media ramis quatuor, 1o 4oque furcatis, costa rotundata, margine interiore recto. *Mas.*—Lamina supra-analis brevis, triangularis. Cerci subarcuati, fere cylindrici. Styli breves, lanceolati. *Fœm.*—Oviductus arcuatus, brevissimus.

Male and female. Body stout. Head hardly narrower than the fore border of the prothorax; keel of the vertex lanceolate, furrowed along the whole length, as broad at its base as the first joint of the antennæ; front convex, lanceolate between the sockets of the antennæ. Eyes round, very prominent. Fifth joint of the maxillary palpi clavate, full twice the length of the fourth. Antennæ long, slender. Prothorax with a flat disk, which widens slightly from the fore border to the hind border; a longitudinal impressed line emitting a curved oblique branch on each side forward; lateral keels well defined; fore border and lateral lobes very slightly concave; hind border slightly convex and elevated. Mesosternum and metasternum deeply notched or forming two lobes. Legs long, rather slender; femora with rudimentary spines; hind femora incrassated for a little more than half the length from the base, rather more than half the length of the fore wings; tibiæ with minute spines, those on the hind tibiæ on each of the four keels. Wings of equal length. Fore wings lanceolate, minutely reticulated; their greatest breadth at somewhat before the middle and about one-fourth of their length; costa rounded; interior border straight; transverse veins approximate, very numerous, nearly parallel, here and there forked, oblique between the scapular vein and the costa; externo-medial vein diverging very slightly from the scapular at somewhat beyond half the length, emitting four branches, of which the first and the fourth are forked; interno-medial and anal nearly straight; tympanum pellucid, largest in the right wings. Hind wings with a minutely reticulated apical patch. *Male.*—Supra-anal lamina short, triangular. Cerci nearly cylindrical, slightly curved. Subgenital lamina with two short lanceolate styles. *Female.*—Oviduct curved, very short, about one-eighth of the length of the abdomen.

The triangular form of the keel of the vertex and the peculiar structure of the transverse veins of the fore wings sufficiently distinguish this genus.

1. Torbia perficita.

Mas et fœm. *Viridis, lutescente varia; antennæ rufæ, basi virides; alæ posticæ diaphanæ, striga apicali lata viridi.*

Male and female. Green, here and there pale luteous. Eyes tawny. Antennæ red, green at the base. Hind wings pellucid; apical patch and

veins green. Length of the body 18—21 lines; expansion of the fore wings 50—58 lines.

a, *b*. Australia. From Mr. Stutchbury's collection.

Genus 111. COSMOPHYLLUM.

Cosmophyllum, *Blanch. Gay, Chili*, vi. 50.

1. Cosmophyllum pallidulum.

pallidulum, *Blanch. Gay, Chili*, vi. 52.

Chili.

2. Cosmophyllum olivaceum.

olivaceum, *Blanch. Gay, Chili*, vi. 52.

Chili.

Genus 112. ITARISSA.

Fœm. Corpus robustum, fusiforme. Caput prothoracis margine antico paullo angustius; verticis carina conica, sulcata, obtusa, antennarum articulo 1o paullo angustior; frons convexa, breviuscula, inter antennas conica. Oculi prominuli, fere elliptici. Palpi maxillares setulosi; articulus 5us subclavatus. Prothorax disco fere plano, carinis lateralibus nullis. Mesosternum et metasternum incisa. Oviductus brevissimus, apice scaber. Pedes robusti, breviusculi. Alæ anticæ latissimæ, subovatæ, costa basi valde convexa apicem versus oblique punctata, margine postico rotundato. Alæ posticæ longiores, apices versus transverse angulatim plicatæ.

Female. Body stout, fusiform, smooth, shining. Head a little narrower than the fore border of the prothorax; keel of the vertex conical, furrowed, obtuse at the tip, a little narrower than the first joint of the antennæ; front convex, rather short, its elongation between the eyes conical, remote from the keel of the vertex. Eyes prominent, nearly elliptical, more rounded on the outer side than on the inner side. Maxillary palpi setulose; fourth joint rather shorter than the third, a little more than half the length of the fifth, which is subclavate. Antennæ long, slender. Prothorax with a nearly flat disk, which widens hindward and has a longitudinal impressed line; lateral keels obsolete; fore border and sides straight, the latter rounded towards the hind border, which is much rounded. Mesosternum more largely notched than the metasternum. Oviduct deep, curved, scabrous towards the tip, about one-fourth of the length of the abdomen. Legs stout, rather short; spines on the femora and on the four anterior tibiæ very minute, those on the four keels of the hind tibiæ a little larger. Fore wings very broad, irregularly oval, very minutely and thickly punctured, the space in front of the scapular vein a little narrower than that behind it; costa much rounded near the base, straight along its outward part, between which and the end of the scapular vein it is obliquely and abruptly truncated; a few oblique ramose veins proceeding from the scapular vein to the costa; areolets small, irregular; a few large, regular areolets between the externo-medial vein and the interno-medial vein, the latter with little knobs towards the base; a fold

along the anal vein; veins most strongly marked on the under side; interior border rounded. Hind wings somewhat longer than the fore wings, folded transversely towards the tips and having the texture of the fore wings along the fore part of the fold, which is angular.

It differs widely from most other genera of *Phyllopteridæ* in the space from the keel of the vertex to the front between the antennæ, in the much rounded sides of the disk of the prothorax, in the structure of the fore wings, and in the transverse fold of the hind wings.

1. Itarissa laurinifolia.

Fœm. *Viridis; antennæ fuscæ, basi virides; alæ posticæ diaphanæ, apud plicam transversam subtiliter areolatæ.*

Female. Green. Eyes and antennæ brown, the latter green at the base. Abdomen pale testaceous. Hind wings pellucid; veins pale green; some minute areolets along the fore part of the transverse fold. Length of the body 14 lines; expansion of the fore wings 40 lines.

a. Para. Presented by G. Graham, Esq.

Genus 113. STEIRODON.

Gryllus, *Linn.*— Phyllophora, *Thunb.*— Phaneroptera, *Brullé*— Locusta, *Fabr.*—Steirodon, *Serv. Rev.* 44; *Hist. Orth.* 399.

1. Steirodon citrifolium.

———, *Deg. Ins.* iii. 437, pl. 37, f. 3. *Roes. Ins.* ii. pl. 16, f. 1—Gryllus citrifolius, *Linn. Mus. Lud.* 125; *Syst. Nat.* ii. 695—Locusta citrifolia, *Fabr. Ent. Syst.* ii. 33. *Thunb. Mém.* v. 286—Gryllus (Tettigonia) citrifolia, *Stoll, Saut. et Gryll.* pl. 4 a, f. 12—Phylloptera citrifolia, *Burm. Handb. Ent.* ii. 694—Steirodon citrifolium, *Serv. Rev.* 44; *Hist. Orth.* 401.

a. British Guiana. Presented by Sir R. Schomburgck.
b. Brazil. From Mr. Stevens' collection.
c. Brazil.

2. Steirodon subproductum.

Fœm. *Testaceum; verticis carina plana, marginata; labrum album; prothoracis discus longiusculus, rugulosus, linea longitudinali lineisque quatuor transversis impressus, carinis lateralibus albidis crenulatis, margine postico valde rotundato; alæ anticæ longi-fusiformes; alæ posticæ diaphanæ, longiores, striga apicali lata testacea.*

Female. Testaceous, smooth. Head as broad as the fore border of the prothorax; keel of the vertex conical, shallow, flat, with a whitish elevated border, severed rather widely from the conical elongation of the front; front flat; labrum white. Eyes elliptical, prominent. Prothorax elongate; disk flat, rugulose, widening hindward, with one longitudinal impressed line and four transverse impressed lines; third transverse line very deeply bent hindward; fore border very slightly excavated; sides with an irregularly conical outline; hind border much rounded; lateral keels

whitish, crenulated, sharply defined. Mesosternum and metasternum deeply notched. Oviduct deep, curved upward, about one-fourth of the length of the abdomen. Fore wings elongate-fusiform, very minutely reticulated, shorter by one line and a half than the hind wings. Hind wings pellucid; apical patch testaceous; veins pale testaceous. Length of the body 13 lines; expansion of the fore wings 45 lines.

The narrower and longer disk of the prothorax distinguish this species from *S. unicolor*.

a. ———?

3. Steirodon unicolor.

Gryllus (Tettigonia) unicolor, *Stoll, Saut. et Gryll.* pl. 5 a, f. 14—Steirodon prasinus, *Serv. Rev.* 44—Steirodon unicolor, *Serv. Hist. Orth.* 402—Phylloptera prasina, *Burm. Handb. Ent.* ii. 693.

Java.

a. Hindostan. From Archdeacon Clerk's collection.

4. Steirodon dentiferum.

Mas. *Viride, robustum, testaceo et luteo varium; verticis carina sulco dentato; prothoracis discus subconcavus, carinis lateralibus albis dentatis, dentibus nonnullis bilobatis; mesosternum et metasternum incisa; alæ anticæ latiusculæ, strigulis plurimis transversis obscurioribus; alæ posticæ diaphanæ, longiores, striga apicali latâ viridi.*

Female. Green, stout, smooth, partly testaceous or luteous. Head mostly whitish; keel of the vertex furrowed, truncated in front, the edges of its furrow dentate. Eyes tawny, nearly round, very prominent. Mandibles with black tips. Prothorax with a slightly concave disk; one longitudinal and four transverse impressed lines; fourth transverse line straight, more distinct than the others, which are curved; lateral keels much elevated, jagged, with several rounded teeth, some of which are bilobed; fore border excavated; sides with a somewhat conical outline; hind border nearly straight, very slightly notched in the middle. Mesosternum and metasternum moderately notched. Legs stout. Fore wings rather broad, minutely reticulated, with numerous little transverse darker streaks. Hind wings pellucid, longer by about two lines than the fore wings; apical patch green; veins very pale green. Length of the body 14 lines; expansion of the fore wings 63 lines.

The prothorax is much narrower than that of *S. citrifolium*, and has far higher keels than those of *S. unicolor* and of *S. subproductum*.

a, *b*. ———?

Genus 114. VETRALLA.

Mas. Corpus robustum. Verticis carina subpunctata, vix elevata, transverse subjugata, antice angustior et truncata; frons subpunctata, inter antennas quadrata. Oculi elliptici, prominuli. Antennæ longæ, validæ;

articuli 1us et 2us incrassati. Prothoracis discus scaber, postice latescens, lineis tribus transversis unaque longitudinali lineolisque duabus obliquis impressis, carinis lateralibus bene determinatis. Prosternum spinis duabus longis armatum; mesosternum et metasternum valde incisa. Cerci crassi, lanceolati. Lamina subgenitalis longa, subarcuata, stylis lanceolatis. Pedes longi; femora apice bispinosa; femora antica spina una subapicali; femora postica spinis validis curvatis biseriatim armata. Alæ anticæ latæ, corpore non longiores, costa fere recta, margine postico exteriore valde rotundato.

Male. Body stout. Head as broad as the fore border of the prothorax; keel of the vertex very shallow, much broader than the first joint of the antennæ, thinly and coarsely punctured, with a slight transverse ridge, narrower in front, where it is truncated; front thinly punctured, quadrate between the antennæ. Eyes elliptical, prominent. Antennæ long, stout; first and second joints incrassated. Prothorax scabrous; disk flat, widening hindward, with impressed lines, of which one is longitudinal, three transverse and two oblique, the latter between the first and second transverse lines; lateral keels well defined; fore border hardly excavated; sides and hind border slightly rounded. Prosternum with two long slender spines; mesosternum and metasternum deeply notched. Cerci thick, lanceolate. Subgenital lamina long, slightly curved, with two lanceolate forks. Legs long; femora with two thick apical spines; fore femora with one subapical spine beneath; hind femora longer by half than the fore wings, with two rows of stout curved spines; hind tibiæ quadrilateral; spines on the two lower keels few, smaller than those above. Fore wings broad, minutely reticulated, vertical in repose, not longer than the body; costa nearly straight; outer part of the interior border much rounded; the larger areolets irregular. Hind wings not developed.

1. VETRALLA QUADRATA.

Mas. *Viridis, testaceo varia.*

Male. Green, partly testaceous. Eyes testaceous. Length of the body 10 lines; expansion of the fore wings 23 lines.

a. Ceylon. Presented by Dr. Hooker.

Genus 115. TYMPANOPHORA.

Tympanophora, *White, Grey's Journ. Exp.* ii. 468.

1. TYMPANOPHORA PELLUCIDA.

pellucida, *White, Grey's Journ. Exp.* ii. 468.

a, b. King George's Sound. From Mr. Stutchbury's collection.
c—e. King George's Sound. Presented by Sir G. Grey.
f. Australia. Presented by the Haslar Hospital.

Genus 116. TEDLA.

Mas. Corpus sat gracile. Verticis carina lanceolata; frons fere plana, inter antennas lanceolata. Oculi rotundi, prominuli. Palpi maxillares graciles; articuli 3us et 4us æquales; 5us clavatus, 4o brevior. Antennæ longæ, gracillimæ; articuli 1us et 2us incrassati. Prothorax sellatus, disco plano subruguloso postice dilatato, linea longitudinali lineisque quatuor transversis impressis indistinctis, margine antico vix concavo, lobis lateralibus fere rectis, margine postico subascendente vix inciso. Sternum lobis bispinosis. Cerci crassi, arcuati, apices versus abrupte attenuati. Lamina subgenitalis stylis duabus lanceolatis setosis subarcuatis. Pedes longi, graciles; tibiæ posticæ femoraque quatuor anteriora spinosula; tibiæ quatuor anteriores spinis longissimis armatæ. Alæ anticæ latæ, fusiformes, corpore paullo longiores, areolis plurimis inordinatis, venis scapulari et externo-medio disjunctis, tympano maximo. Alæ posticæ breviores.

Male. Body smooth, shining, rather slender. Head as broad as the fore border of the prothorax; vertex in front with a lanceolate keel, which is much shorter than the first joint of the antennæ; front erect, nearly flat, lanceolate between the sockets of the antennæ. Eyes round, prominent. Palpi slender; apical joint clavate; third and fourth joints of the maxillary palpi about equal in length; fifth shorter than the fourth. Antennæ very slender, about twice the length of the body; first and second joints incrassated. Prothorax saddle-shaped; disk flat, very slightly rugulose, dilated hindward, with a slightly elevated and hardly notched hind border; a slight impressed longitudinal line and four slight impressed transverse lines, of which the first and the third are bent; fore border hardly excavated; sides nearly straight. Sternum in each division emitting two slender obtuse spines, those on the prosternum longer than the others. Cerci curved, thick, abruptly attenuated towards their tips, which are acute. Supra-anal lamina conical, short. Subgenital lamina with two lanceolate setose slightly curved styles. Legs long, slender; four anterior femora with one row of minute spines; hind femora with two rows, a little shorter than the fore wings; four anterior tibiæ with two rows of slender very long spines; hind tibiæ with numerous small spines on each of the four keels. Fore wings broad, fusiform, a little longer than the body; costa and interior border rounded; areolets between the costa and the scapular vein numerous, irregular; scapular with a longitudinal fold, parted along its whole length from the externo-medial, with which it includes a row of small quadrate areolets; externo-medial emitting a ramose branch at about two-thirds of the length; space between it and the interno-medial with small irregular areolets; interno-medial undulating, emitting to the interior border oblique veins; these include between them transversely narrow areolets, and some of them are forked; tympanum very large. Hind wings somewhat shorter than the fore wings.

1. TEDLA SELLATA.

Mas. *Pallide viridis; vertex et prothoracis discus ferruginei, hic nigro marginatus; alæ anticæ sinistræ tympanum ferrugineo marginatum; alæ posticæ diaphanæ, albo venosæ.*

Male. Pale green. Vertex ferruginous. Eyes brown. Flat disk of the prothorax ferruginous, black-bordered. Spines of the four anterior tibiæ black at the base. Tympanum of the left fore wing irregularly bordered with ferruginous. Hind wings pellucid, shorter by two lines than the fore wings; veins white. Length of the body 12 lines; expansion of the fore wings 28 lines.

a. Silhet. From the Rev. Mr. Stainforth's collection.
b. Corea. Presented by Capt. Sir E. Belcher.
c. Philippine Isles. From Mr. Cuming's collection.

Genus 117. VERIA.

Mas. Corpus glabrum, sat validum. Verticis carina lanceolata, minima; frons vix convexa, inter antennas lanceolata. Oculi rotundi, prominuli. Palpi maxillares graciles; articulus 5us clavatus, 3o longior. Antennæ longæ, gracillimæ. Prothorax sellatus; discus planus, postice sublatescens, carinis lateralibus indeterminatis, margine postico valde rotundato. Prosternum bispinosum. Cerci lanceolati, arcuati, setulosi. Pedes graciles; tibiæ posticæ femoraque spinosula; tibiæ quatuor anteriores spinis longis armatæ. Alæ anticæ subfusiformes, corpore paullo breviores, areolis plurimis minimis inordinatis, costa fere recta, margine postico vix angulato, venis scapulari et externo-media disjunctis, tympano maximo.

Male. Body smooth, shining, rather stout. Head as broad as the fore border of the prothorax; keel of the vertex lanceolate, very minute; front erect, hardly convex, lanceolate between the sockets of the antennæ. Eyes round, prominent. Palpi slender; apical joint clavate, truncated; fourth joint of the maxillary shorter than the third; fifth longer than the third. Antennæ long, very slender; first and second joints thick. Prothorax somewhat saddle-shaped; disk flat, widening slightly hindward; lateral keels indeterminate; fore border hardly concave; sides or lateral lobes with a conical outline; hind border much rounded. Prosternum with two spines. Cerci lanceolate, curved, setulose. Legs slender; femora with two rows of very minute spines; hind femora incrassated for half the length from the base, somewhat shorter than the fore wings; four anterior tibiæ with two rows of very minute spines; hind femora incrassated for half the length from the base, somewhat shorter than the fore wings; four anterior tibiæ with two rows of long spines; hind tibiæ with four rows of minute spines. Wings of equal length. Fore wings subfusiform, a little shorter than the body, with very small and very irregular areolets; costa nearly straight; interior border very slightly angular; scapular and externo-medial vein separated from each other along the whole length, the intermediate areolets as usual; interno-medial vein and branch of the externo-medial forked; tympanum very large. Hind wings broad.

1. Veria colorata.

Mas. *Nigra; vertex luteus, ferrugineo vittatus; prothorax luteo bivittatus, lobis ateralibus luteo marginatis et transverse strigatis; alæ anticæ flavo bifasciatæ, tympano diaphano; alæ posticæ nigricantes, plaga costali flava magna.*

Male. Black. Head reddish on each side in front of the eyes; vertex luteous, with four dark ferruginous stripes, of which the inner pair are lanceolate and the outer pair are sometimes obsolete. Eyes tawny. Palpi dingy luteous, blackish at the tips. Antennæ luteous, black at the base, brown towards the tips. Prothorax with two luteous stripes, which are united on the hind border; sides with a transverse luteous streak and a narrow luteous rim. Legs piceous; keels of the femora, tibiæ towards the tips and spines of the four anterior tibiæ luteous. Fore wings with two broad irregular yellow bands; tympanum pellucid. Hind wings blackish, with a large yellow costal patch in the middle. Length of the body 10 lines; expansion of the fore wings 20 lines.

a, *b*. Australia. Presented by the Haslar Hospital.

The *Scaphuridæ* include the two following genera.

Genus 118. SCAPHURA.

Scaphura, *Kirby*, *Zool. Journ. i.* 429; ii. 9. *Serv. Rev.*; *Hist. Orth.* 428. *Brullé*, *Burm. Handb. Ent.* ii. 687.

1. Scaphura Vigorsii.

Vigorsii, *Kirby*, *Zool. Journ.* i. 429; ii. 9, pl. 1, f. 1—6. *Serv. Orth.* 429. *Burm. Handb. Ent.* ii. 687. ———, *Enc. Meth.* x. 345.

a. Para. From Mr. Wallace's collection.
b. Para. From Mr. Bates' collection.
c. Brazil. From Mrs. Noel's collection.

2. Scaphura ferruginea.

ferruginea, *Perty*, *Del. An. Art.* 120, pl. 23, f. 11. *Serv. Hist. Orth.* 430. *Burm. Handb. Ent.* ii. 687.

a. Brazil. Presented by J. P. G. Smith, Esq.
b. Petropolis. Presented by the Rev. H. Clark.

3. Scaphura nitida.

nitida, *Perty*, *Del. An. Art.* 121, pl. 23, f. 12; *Burm. Handb. Ent.* ii. 687.

4. Scaphura Kirbii.

Kirbii, *Westw. Griff. An. Kingd.* xv. pl. 63, f. 1.

Brazil.

5. Scaphura Edwardsi.

Edwardsi, *Westw. Zool. Journ.* iv. 225.

Brazil.

6. Scaphura chalybæa.

chalybæa, *Marshall*, *Ann. Wien. Mus. Naturg.* i. 210.

Brazil.

Genus 119. GYMNOCERA.

Gymnocera, *Brullé, Hist. Nat. Ins.* ix. *Serv. Hist. Orth.* 425.

1. Gymnocera denuda.

Scaphura denuda, *Grier. et Perch. Gen. Ins. Orth.* pl. 4. *Burm. Handb. Ent.* ii. 687—Gymnocera Lefebvrei, *Brullé, Hist. Nat. Ins.* ix. 146—*Serv. Hist. Orth.* 426.

Brazil.

2. Gymnocera elegans.

elegans, *Serv. Hist. Orth.* 427.

Buenos Ayres.

3. Gymnocera modesta.

modesta, *Blanch. Gay, Chile*, vi. 47.

Chili.

4. Gymnocera bicolor.

Scaphura bicolor, *Blanch. Voy. D'Orbigny*, vi. 215, pl. 20, f. 7.

Patagonia.

5. Gymnocera marginata.

Mas. *Testacea; verticis carina albida, sulcata, apice obtusa; frons inter antennas albida, fere semicircularis; antennæ nigræ, basin versus testaceo variæ; abdomen atrum, basi apiceque cyaneum; femora apice, tibiæ basi tarsique cyanea; alæ anticæ fulvæ, viridi venosæ; alæ posticæ luridæ, nigricante marginatæ.*

Male. Testaceous. Keel of the vertex whitish, furrowed, obtuse at the tip; front between the antennæ whitish, nearly semicircular. Eyes elliptical, prominent. Antennæ black, very much longer than the body, with two testaceous bands near the base, which is wholly testaceous. Prothorax with two purplish patches on each side. Mesothorax and metathorax metallic-blue. Dorsum of the abdomen deep black, metallic-blue at the base and at the tip. Oviduct tuberculated, serrated. Femora at the tips, tibiæ at the base and tarsi blue. Fore wings tawny; veins pale green. Hind wings lurid, with a blackish border. Length of the body 11 lines; expansion of the fore wings 30 lines.

The dark border of the hind wings distinguishes it from *G. denuda* and from *G. elegans; G. bicolor* differs from it in the markings of the prothorax.

a. Demerara.

The *Pseudophyllidæ* begin with the following genus:—

Genus 120. PLATYPHYLLUM.

Platyphyllum, *Serv. Rev.* 48; *Hist. Orth.* 443. *Brullé*—Cyrtophyllus, *Burm. Handb. Ent.* ii. 697.

1. Platyphyllum perspicillatum.

Gryllus (Tettigonia) perspicillata, *Stoll, Saut. et Grill.* pl. 7 a, f. 23, 24—Locusta perspicillata, *Fabr. Sp. Ins.* i. 357; *Mant. Ins.* i. 233; *Ent. Syst.* ii. 36—Locusta salvifolium, *Licht. Trans. Linn. Soc.* iv. 51—Platyphyllum salvifolium, *Brullé, Hist. Nat. Ins.* ix. 139—Platyphyllum perspicillatum, *Serv. Hist. Orth.* 445—Cyrtophyllus perspicillatus, *Burm. Handb. Ent.* ii. 697. *Scudd. Journ. Bost. Soc. Nat. Hist.* 444.

Texas. Mexico.

a. Para. From Mr. Bates' collection.
b. ———?

2. Platyphyllum concavum.

Pterophylla concava, *Say, MSS. Harr. Enc. Am.* viii. 42; *Harr. Cat. Ins. Mass.* 56—Platyphyllum concavum, *Harr. Rep.* 3*rd Ed.* 158, f. 74—Cyrtophyllus concavus, *Scud. Journ. Bost. Soc. Nat. Hist.* vii. 444.

a—h. United States. Presented by E. Doubleday, Esq.
i. United States. Presented by F. Walker, Esq.
j. North America.

3. Platyphyllum hypericifolia.

Gryllus (Tettigonia) hypericifolia, *Stoll, Saut. et Grill.* 10, pl. 3, f. 9—Cyrtophyllus hypericifolius, *Burm. Handb. Ent.* ii. 697.

Surinam.

4. Platyphyllum? coriaceum.

Gryllus (Tettigonia) coriaceus, *Linn. Mus. Lud.* 136—Locusta coriacea, *Fabr. Ent. Syst.* ii 40—Platyphyllum coriaceum, *Serv. Hist. Orth.* 446.

Martinico.

5. Platyphyllum? scabricollis.

scabricolle, *Serv. Hist. Orth.* 446.

Martinico.

6. Platyphyllum? maculipennis.

maculipenne, *Serv. Hist. Orth.* 447.

Brazil.

Genus 121. PSEUDOPHYLLANAX.

Fœm. Corpus robustum. Caput magnum; verticis carina conica, antice incisa; frons plana, transverse et subtiliter striata. Oculi parvi, rotundi, valde prominuli. Palporum maxillarium articulus 3us basi corniculo armatum, 4o duplo longior; 5us subclavatus, 4o plus duplo longior. Antennæ longæ, graciles. Prothorax subrugulosus, spinis quatuor obtusis anticis marginalibus armatus; margo anticus rotundatus; latera fere recta; margo posticus vix rotundatus. Prosternum bispinosum. Mesosternum et metasternum incisa. Cerci lanceolati, longissimi. Oviductus rectus, abdomini æquilongus. Pedes longi, crassi, spinulosi. Alæ anticæ latæ, apice valde rotundatæ, femoribus posticis plus duplo longiores, costa subrotundata, margine interiore recto. Alæ posticæ latissimæ, breviores, apud plicam incisæ.

Female. Body stout. Head large, nearly as broad as the fore border of the prothorax; keel of the vertex conical, notched in front, as broad as the first joint of the antennæ; front flat, transversely and minutely striated; labrum subcordiform. Eyes small, round, very prominent. Third joint of the maxillary palpi broader than the fourth and about twice its length, rejecting a little lanceolate appendage from its base; fifth subclavate, more than twice the length of the fourth. Antennæ slender, very much longer than the body; first and second joints stout; socket of the first with an elevated border. Prothorax slightly rugulose, with an impressed longitudinal line and with two strongly impressed transverse lines; two obtuse spines on each side in front, one much larger than the other; fore border rounded; sides nearly straight; hind border elevated, hardly rounded. Prosternum with two long stout perpendicular spines. Mesosternum and metasternum notched on the hind border, or forming a lobe on each side. Cerci lanceolate, very long. Oviduct straight, as long as the abdomen. Legs long, thick; four anterior femora with a few minute spines; hind femora full four-ninths of the length of the fore wings, and like the four anterior tibiæ with two rows of small spines beneath; hind tibiæ with a row of rather small spines on each of the four keels; third joint of the tarsi with much larger foliaceous appendages than those of the other joints. Fore wings broad, much rounded and hardly narrower at the tips; costa slightly rounded; interior border straight; space between the costa and the scapular with many irregular areolets towards the base, and in the exterior part with one row of oblique transverse veins, some of which are forked; scapular and externo-medial diverging from each other beyond the middle and including some areolets of various shape; areolets in the hinder part with the usual number of rows, mostly narrow, of regular form; externo-medial vein emitting two oblique branches; interno-medial vein emitting five oblique branches beyond the middle. Hind wings very broad, rather shorter than the fore wings, much rounded at the tips, slightly notched at the end of the discoidal fold; apical space minutely reticulated.

This genus in some characters is more allied to the *Phyllopteridæ* than to the *Pseudophyllidæ*.

1. Pseudophyllanax insularis.

Fœm. *Viridis, testaceo aut luteo varius; alæ posticæ diaphanæ, apice virides.*

Female. Green, partly testaceous or luteous. Oviduct luteous. Hind wings pellucid, green about the tips; veins pale green. Length of the body 36 lines; expansion of the fore wings 113 lines.

a. Isle of Pines. Presented by the Admiralty.
b, *c*. Isle of Pines. Presented by Sir J. Liddell.

Genus 122. PSEUDOPHYLLUS.

Pseudophyllus, *Serv. Rev.* 46; *Hist. Orth.* 464. *Brullé, Burm. Handb. Ent.* ii. 698.

Africa.

1. Pseudophyllus aridus.

Mas et fœm. *Sordide testaceus, robustus; capitis carina tenuis, lanceolata, sulcata; antennæ fuscæ, basi testaceæ; prothorax subtuberculatus, margine antico subrotundato, lateribus angulatis, margine postico valde rotundato; pedes robusti, spinulosi; alæ anticæ latiusculæ, costa margineque interiore vix rotundatis; alæ posticæ diaphanæ, paullo longiores, apice testaceæ.* Mas.—*Lamina supra-analis longi-conica; cerci validi, arcuati, fere cylindrici; alæ anticæ femoribus posticis plus duplo longiores.* Fœm.—*Oviductus supra serrulatus; alæ anticæ femoribus posticis plus triplo longiores.*

Male and female. Dingy testaceous, stout. Head a little narrower than the fore border of the vertex: fore part shining, slightly oblique; keel of the vertex lanceolate, furrowed, very much shorter than the first joint of the antennæ and about half its length; front lanceolate between the sockets of the antennæ. Eyes prominent, nearly round. Antennæ brown, testaceous towards the base. Prothorax slightly and thinly tuberculate, with a longitudinal impressed line, which is only apparent where it intersects the hinder of two strongly impressed transverse lines; fore border slightly rounded; sides angular, tuberculate on the fore side; hind border much rounded. Legs stout; four anterior femora with rudimentary spines; hind femora and four anterior tibiæ with two rows of minute spines; hind tibiæ with a few minute spines on each of the four keels. Fore wings rather broad; costa and interior border very slightly rounded; space between the costa and the scapular vein with numerous areolets towards the base, its exterior part with transverse veins, some of which are forked; scapular and externo-medial diverging from each other beyond the middle and including a row of small quadrate areolets; space between the externo-medial and the anal vein with two and exteriorly with three rows of large regular areolets; smaller areolets numerous, irregular; areolets between the anal vein and the interior border numerous near the base, in one row and very narrow along the exterior part. Hind wings pellucid, a little longer than the fore wings; veins and apical patch testaceous. *Male.*—Supra-anal lamina elongate-conical. Cerci stout, curved, nearly cylindrical. Subgenital lamina attenuated hindward and furnished with two long styles. Hind femora somewhat less than half the length of the fore wings. Tympanum large. *Female.*—Oviduct black towards the tip, minutely serrated in the middle part above. Hind femora a little less than one-third of the

length of the fore wings. Length of the body 18 lines; expansion of the fore wings 50—60 lines.

a—c. Congo. Presented by Sir J. Richardson.

2. Pseudophyllus ophthalmicus.

Fœm. *Robustus, viridis aut lutescens; caput antice pallidum, carina lanceolata sulcata antennarum articulo 1o paullo angustiore; oculi rufi, nigro vittati; prothorax subtuberculatus, margine antico rotundato, lobis lateralibus productis, margine postico vix angulato; oviductus abdominis dimidio paullo longior; pedes robusti, spinulosi; alæ anticæ latæ, femoribus posticis plus duplo longiores; costa rotundata, margine interiore fere recto; alæ posticæ diaphanæ, longiores, striga lata apicali viridi aut lutescente.*

Female. Green or pale luteous. Head a little narrower than the fore border of the prothorax; fore part paler, shining; keel of the vertex lanceolate, furrowed, a little shorter and narrower than the first joint of the antennæ; front lanceolate between the antennæ. Eyes reddish, round, prominent, with several black stripes. Prothorax with a few tubercles and with two strongly impressed transverse lines, which converge on each side and have between them an indistinct longitudinal line; fore border rounded; sides with a conical outline; hind border hardly angular. Oviduct black towards the tips, a little more than half the length of the abdomen. Legs stout; four anterior femora and tibiæ with very minute spines, those on the fore femora merely rudimentary; hind tibiæ with a few small spines on each of the four keels of equal length. Fore wings broad, subfusiform, shorter by three lines than the hind wings; costa rounded; hind border nearly straight; secondary areolets irregular, very small; space between the scapular vein and the costa as usual; scapular and externo-medial diverging from each other and including some small quadrate areolets; areolets between the externo-medial and the interno-medial in two rows, very large; those between the latter and the anal smaller; those between the anal and the interior border very small. Hind wings pellucid; apical patch green or pale luteous; veins very pale green or straw-colour. Length of the body 19 lines; expansion of the fore wings 60 lines.

a. Natal. From M. Gueinzius' collection.
b. East Africa. Presented by Earl Russell.

South Asia.

3. Pseudophyllus Titan.

Titan, *White*, *Ann. Nat. Hist.* xviii. 23, pl. 1, f. 1.

a—c. Silhet. From Mr. Argent's collection.
d. Tenasserim. Presented by J. C. D. V. Packman, Esq.
e. ———?

4. Pseudophyllus neriifolia.

Gryllus (Tettigonia) neriifolia, *Stoll, Saut. et Grill.* 11, pl. 4 a, f. 11—
Pseudophyllus neriifolius, *Brullé*, *Hist. Nat. Ins.* ix. 137, pl. 12.

Serv. Hist. Orth. 466. *Burm. Handb. Ent.* ii. 698—Locusta (Pseudophyllus neriifolia, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 203.

Java.

a—c. Silhet. From Mr. Sowerby's collection.

5. Pseudophyllus uninotatus.

uninotatus, *Serv. Hist. Orth.* 468.

Java.

a. Hindostan. From Archdeacon Clerk's collection.
b—d. Silhet. From the Rev. Mr. Stainforth's collection.
e. Hindostan. From Mr. Sowerby's collection.

6. Pseudophyllus fenestratus.

Gryllus (Tettigonia) fenestrata, *Stoll, Saut. et Grill.* 12, pl. 5 a, f. 13—Pseudophyllus myops, *Serv. Hist. Orth.* 468—Locusta (Pseudophyllus) fenestrata, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 203.

Amboina.

a, b. Ceylon. From Dr. Thwaites' collection.
c. Ceylon. Presented by Dr. Templeton.
d. Ceylon. Presented by Dr. Hooker.

7. Pseudophyllus longicauda.

longicaudus, *Burm. Handb. Ent.* ii. 698.

Singapore.

8. Pseudophyllus femoratus.

Locusta femorata, *Fabr. Ent. Syst.* ii. 37—*Stoll, Saut. et Grill.* 16, pl. 6, f. 22—Pseudophyllus femoratus, *Burm. Handb. Ent.* ii. 698.

Hindostan.

9. Pseudophyllus assimilis.

Fœm. *Viridis, robustus; caput antice albidum, carina lanceolata sulcata antennarum articuli 1i dimidio æquilata; prothorax tuberculatus, margine antico subrotundato, margine postico rotundato; oviductus abdomini æquilongus; pedes crassi, femoribus fortiter spinosis; alæ anticæ sat angustæ, femoribus posticis plus triplo longiores, costa rotundata, margine interiore fere recto; alæ posticæ diaphanæ, breviores.*

Female. Green, stout. Head a little narrower than the fore border of the prothorax, whitish towards the mouth; keel of the vertex lanceolate, furrowed, about half the breadth of the first joint of the antennæ; front conical between the elevated borders of the sockets of the antennæ. Eyes brown, prominent, short-elliptical. Antennæ about twice the length of the body. Prothorax tuberculate, with one longitudinal and two transverse impressed lines; fore border slightly rounded; sides and hind border more rounded. Oviduct black towards the tip, as long as the abdomen. Legs thick; femora with two rows of spines, those on the outer side larger than the others; hind femora a little less than one-third of the length of the fore

wings; spines of the tibiæ few and very small. Fore wings rather narrow, rounded at the tips, somewhat longer than the hind wings; costa rounded; interior border almost straight; areolets between the costa and the scapular vein mostly irregular, forming three rows, but towards the tip only one; a few large areolets between the externo-medial vein and the interno-medial, the intermediate transverse veins emitting branches at right angles; some quadrate areolets between the interno-medial and the anal vein, and numerous small irregular areolets along the interior border. Hind wings pellucid; veins green; transverse veins white. Length of the body 18 lines; expansion of the fore wings 64 lines.

The irregular structure of the veins of the fore wings distinguish it from most other species of *Pseudophyllus*.

a. Silhet. From the Rev. Mr. Stainforth's collection.

10. Pseudophyllus tener.

Mas. *Pallide viridis, lutescente varius; caput antice albidum, carina lanceolata sulcata antennarum articulo 1o vix angustiore; antennæ roseo fasciatæ; prothorax subtuberculatus, margine antico subrotundato, lateribus fere rectis antice crenulatis, margine postico subangulato; cerci subarcuati, obtusi; styli spatulati; pedes robusti, breviusculi, spinosuli; femoribus posticis uniseriatim fortiter spinosis; alæ anticæ latiusculæ, femoribus posticis plus triplo longiores, costa margineque interiore perparum rotundatis; alæ posticæ diaphanæ, longiores.*

Male. Pale green, partly pale luteous. Head whitish in front, nearly as broad as the fore border of the prothorax; keel lanceolate, furrowed, almost as broad as the first joint of the antennæ. Eyes tawny, round, prominent. Antennæ with rosy bands. Prothorax very slightly tuberculate, with two transverse impressed lines which converge slightly on each side; fore border slightly rounded; lateral lobes nearly straight, slightly crenulated in front; hind border forming a slightly obtuse angle. Cerci slightly curved, obtuse. Styles spatulate. Legs stout, rather short; four anterior femora and tibiæ with rudimentary spines; hind femora with one row of stout spines, a little less than one-third of the length of the fore wings; hind tibiæ with a few very minute spines on three of the four keels. Fore wings rather broad, with several small irregular areolets in each of the large regular areolets; costa and interior border very slightly rounded; space between the costa and the scapular with a row of transverse veins, some of which are forked; scapular and externo-medial united in the middle part, separated towards the base, more widely diverging and including larger areolets towards the tip; transverse veins along the interior border long, straight, approximate, parallel to each other. Hind wings pellucid, longer by three lines than the hind wings; veins very pale green. Length of the body 12 lines; expansion of the fore wings 40 lines.

Approaches *P. assimilis* in the structure of the fore wings, but the prothorax is much shorter.

a. Ceylon.

11. Pseudophyllus venosus.

Fœm. *Testaceus, sat gracilis; caput antice albidum, carina tenui lanceolata sulcata; prothorax tuberculatus, margine antico valde rotundato, lobis lateralibus crenulatis, margine postico angulato; oviductus abdominis dimidio longior; pedes crassi, femoribus tibiisque posticis fortiter spinosis, femoribus posticis alarum anticarum dimidio valde brevioribus; alæ anticæ angustæ, subtuberculatæ; alæ posticæ diaphanæ, apice testaceæ.*

Female. Testaceous, shining, rather slender. Head partly whitish in front, rather narrower than the fore border of the prothorax; keel of the vertex lanceolate, deeply furrowed, not more than half the breadth of the first joint of the antennæ; front conical between the antennæ. Eyes brown, round, prominent. Antennæ more than twice the length of the body. Prothorax tuberculate, with one longitudinal and two transverse impressed lines; fore border much rounded; sides crenulated, nearly straight; hind border angular. Oviduct black towards the tip, more than half the length of the abdomen. Legs thick; femora and four anterior tibiæ with two rows of spines, which are very small on the fore femora, long and stout on the hind femora; the latter are much less than half the length of the fore wings; hind tibiæ with the spines on the two upper keels much longer and stouter than those on the two lower keels. Wings of equal length. Fore wings narrow, very thinly tuberculate; four rows of areolets between the scapular vein and the costa; first row limited to the dilated part of the costa and composed of small irregular areolets; second terminating at a little before two-thirds of the length, each of its areolets towards the base including some smaller areolets; fourth commencing at a little nearer the base than where the second ceases; four rows of areolets behind the scapular vein, those of the fourth row narrow and with slightly oblique and undulating veins. Hind wings pellucid; tips testaceous; veins pale testaceous. Length of the body 20 lines; expansion of the fore wings 66 lines.

The narrower space between the scapular vein and the costa and the more numerous transverse veins distinguish this species from *P. Titan*, *P. neriifolia*, *P. graniger*, *P. uninotatus* and *P. fenestratus*.

a. Silhet. From Mr. Sowerby's collection.

12. Pseudophyllus siccus.

Fœm. *Viridis, gracilis, testaceo aut fulvo varius; caput antice albidum, carina lanceolata sulcata; antennæ fuscæ, basi testaceæ; prothorax tuberculatus, marginibus antico et postico rotundatis; oviductus abdominis dimidio æquilongus; pedes crassi, spinosuli, femoribus posticis alarum anticarum dimidio brevioribus; alæ anticæ lanceolatæ, sat angustæ; alæ posticæ diaphanæ, paullo breviores.*

Female. Green. Body slender, mostly testaceous or tawny. Head rather narrower than the fore border of the prothorax; keel of the vertex lanceolate, deeply furrowed, narrower than the first joint of the antennæ; fore part whitish; front conical between the antennæ. Eyes brown, round, prominent. Antennæ brown, testaceous towards the base. Prothorax

tuberculate, with two transverse impressed lines, of which the hinder one is curved; fore border and hind border rounded; sides nearly straight. Oviduct black towards the tip, about half the length of the abdomen. Legs thick; fore femora with one row of very minute spines; four posterior femora with two rows of spines, those on the middle femora very small; hind femora about two-fifths of the length of the fore wings; tibiæ with very minute spines; hind tibiæ with no spines on the two upper keels. Fore wings lanceolate, rather narrow, a little longer than the hind wings; three rows of areolets between the costa and the scapular vein; first row not extending far from the base of the wing; second and third not extending to the tip; second of irregular areolets; a few areolets in the third large, each including some smaller areolets; externo-medial vein parting from the scapular in the middle and including with it several small exterior areolets; one row and beyond the middle two rows of areolets between the externo-medial vein and the interno-medial, each areolet including some smaller irregular areolets; two hinder rows of areolets, those along the interior border very numerous. Hind wings pellucid; veins pale green; transverse veins white. Length of the body 19 lines; expansion of the fore wings 56 lines.

The externo-medial vein emits its chief branch after it parts from the scapular; in *P. neriifolia*, *P. fenestratus* and *P. uninotatus* it emits the branch much nearer to the base of the wing. The transverse veins are less numerous and more irregular than those of *P. venosus*.

a. Madras. Presented by Sir R. Sale.
b. Silhet. From Mr. Sowerby's collection.
c, *d*. Silhet. From the Rev. Mr. Stainforth's collection.

13. Pseudophyllus concinnus.

Mas. *Pallide viridis, gracilis, testaceo varius; caput angustum, carina lanceolata sulcata antennarum articulo 1o valde angustiore, labro albido; prothorax vix scaber, margine antico subrotundato, lateribus angulatis, margine postico vix angulato; lamina supra-analis brevis; cerci crassi; styli fusiformes; alæ anticæ angustæ, acutæ, femoribus posticis triplo longiores, apud venam scapularem albo guttatæ, costa rotundata, margine anteriore fere recto; alæ posticæ diaphanæ, paullo breviores, striga apicali lata viridi ferrugineo unilineata.*

Male. Pale green, slender, partly testaceous. Head rather narrower than the fore border of the prothorax; fore part shining, very oblique; labrum whitish; keel of the vertex lanceolate, furrowed, much narrower than the first joint of the antennæ; front attenuated as usual between the antennæ. Eyes brown, small, round, prominent. Antennæ much more than twice the length of the body. Prothorax hardly scabrous; the longitudinal impressed line apparent only in the middle; the two transverse impressed lines quite distinct; fore border slightly rounded; sides angular; hind border hardly angular. Supra-anal lamina short, curved downward, with reflexed sides. Cerci short, thick. Subgenital lamina with two thick fusiform styles. Legs stout; spines as usual; hind femora about one-third of the length of the fore wings; hind tibiæ with spines on each of the four keels. Fore wings lanceolate, narrow, acute, longer by one line than the hind wings; costa rounded, whitish; interior border almost straight; a few

white dots along the scapular vein towards the base; areolets in front of the scapular as in *P. parallelus;* each of the three posterior rows of areolets regularly subdivided into three rows; areolets along the interior border successively shorter outward from the transverse fold; tympanum large. Hind wings pellucid, acute; apical patch green, with a ferruginous line; veins greenish white. Length of the body 15 lines; expansion of the fore wings 54 lines.

The fore wings are broader than those of *P. parallelus*, and are longer than the hind wings.

a. Silhet. From Mr. Argent's collection.

14. Pseudophyllus breviusculus.

Fœm. *Viridis aut testaceus; caput antice albidum, carina lanceolata sulcata antennarum articulo 1o angustiore; prothorax subtiliter tuberculatus, margine antico subrotundato, lateribus fere rectis, margine postico rotundato; oviductus abdominis dimidio paullo longior; pedes robusti, spinosuli, femoribus posticis biseriatim spinosis; alæ anticæ femoribus posticis plus triplo longiores, costa exteriore rotundato, margine interiore fere recto; alæ posticæ diaphanæ, paullo breviores.*

Female. Green or testaceous, rather stout. Head narrower than the fore border of the prothorax; fore part whitish, shining, very oblique; keel of the vertex lanceolate, furrowed, shorter and narrower than the first joint of the antennæ; front lanceolate between the sockets of the antennæ. Eyes tawny, prominent, nearly round. Prothorax minutely tuberculate, with two transverse impressed lines, of which the hinder one is curved; fore border slightly rounded; sides nearly straight; hind border rounded. Oviduct slightly black towards the tip, a little more than half the length of the abdomen. Supra-anal lamina elongated, obtuse at the tip. Cerci slender. Legs stout; fore femora and fore tibiæ with few and very minute spines; spines of the middle femora and middle tibiæ a little larger and more numerous; hind femora less than one-third of the length of the fore wings, with two complete rows of rather large spines; hind tibiæ with some minute spines on two of the four keels. Fore wings lanceolate, moderately broad; exterior part of the costa rounded; interior border nearly straight; rows of areolets between the scapular diminishing from four to one as they are more remote from the base; scapular vein and externo-medial receding from each other beyond the middle and including a row of areolets; two and exteriorly three rows of large areolets between the externo-medial and the anal vein, some of these areolets incomplete; a row of small quadrate areolets along the interior border, which is minutely reticulated; reticulation larger at the base. Hind wings pellucid, a little shorter than the fore wings; veins pale green or white. Length of the body 15—17 lines; expansion of the fore wings 48—50 lines.

The wings are shorter than those of *P. siccus*, to which this species has great affinity.

a. Ceylon. From the Rev. Mr. Wenham's collection.
b, *c*. Ceylon. From Dr. Thwaites' collection.

15. Pseudophyllus detersus.

Mas. *Viridis, testaceo varius; capitis carina lanceolata sulcata antennarum articulo 1o paullo angustior; prothorax tuberculatus, margine antico rotundato, margine postico valde rotundato; cerci fere cylindrici; pedes robusti, femoribus quatuor posterioribus biseriatim spinosis; alæ æquilongæ; alæ anticæ angustæ, femoribus posticis plus duplo longiores, apice rotundatæ, costa perparum convexa, margine interiore fere recto; alæ posticæ diaphanæ.*

Male. Green, partly testaceous, nearly fusiform. Head a little narrower than the fore border of the prothorax; keel of the vertex lanceolate, furrowed, a little narrower than the first joint of the antennæ; front forming a little cone between the sockets of the antennæ. Eyes brown, prominent, short-elliptical. Antennæ more than twice the length of the body. Prothorax tuberculate, with one longitudinal and two transverse impressed lines; fore border and sides rounded; hind border much rounded. Cerci stout, nearly cylindrical. Subgenital lamina elongated, with two long styles. Legs stout; fore femora with a few very minute spines; four posterior femora with two rows of spines, those on the outer side much larger than those on the inner side; hind femora a little less than half the length of the fore wings; four anterior tibiæ unarmed; hind tibiæ with very short blunt spines on the two upper keels. Fore wings narrow; tips rounded; costa very slightly rounded; interior border nearly straight; areolets between the scapular and the costa irregular; their three rows passing into one towards the tip of the wing; a single row and exteriorly a double row of areolets between the externo-medial vein and the interno-medial; some of these areolets very large, their transverse veins emitting branches; two rows of quadrate areolets between the interno-medial and the interior border, the smaller areolets in the second row. Hind wings pellucid, as long as the fore wings; veins very pale green. Length of the body 11 lines; expansion of the fore wings 38 lines.

It may be the male of *P. brevisculus.*

a. ———?

16. Pseudophyllus Sinensis.

Mas. *Testaceus aut viridis, sat robustus; capitis carina lanceolata, sulcata, antennarum articulo 1o valde angustior; antennæ nigricantes, basi testaceæ; prothoracæ subtiliter tuberculatus, marginibus antico et postico valde rotundatis, lateribus subrotundatis; styli clavati; pedes breves, crassi, spinulosi; alæ æquilongæ; alæ anticæ sat angustæ, femoribus posticis plus duplo longiores, costa margineque interiore fere rectis; alæ posticæ diaphanæ.*

Male. Testaceous or green, rather stout. Head rather narrower than the fore border of the prothorax; keel of the vertex lanceolate, furrowed, much narrower and shorter than the first joint of the antennæ; front conical between the sockets of the antennæ. Eyes tawny, round, prominent. Antennæ blackish, testaceous at the base. Prothorax finely tuberculated, with an indistinct longitudinal impressed line and two strongly marked transverse impressed lines, which slightly converge towards one other on each side, and of which the hind one is more abbreviated than the fore one; fore border and hind border much rounded; sides slightly

rounded. Subgenital lamina elongate, with two clavate styles. Legs short, thick; fore femora and four anterior tibiæ unarmed; middle femora and hind tibiæ with two or three rudimentary spines; hind femora about two-fifths of the length of the fore wings, with one row of eight small spines. Wings of equal length. Fore wings minutely reticulated, rather narrow; costa and interior border nearly straight; three irregular rows of areolets between the scapular vein and the costa; scapular and externo-medial vein contiguous for about two-thirds of the length, where they part and are lost in ramifications; three irregular rows of areolets between the externo-medial and the anal vein, and one row of regular quadrate areolets between the latter and the interior border. Hind wings pellucid; veins green. Length of the body 12 lines; expansion of the fore wings 33 lines.

It much resembles *P. breviusculus*, but the spines of the hind femora are fewer and smaller, and the areolets in the middle part of the fore wings are more numerous and complete.

a. Hong Kong. Presented by J. C. Bowring, Esq.

17. Pseudophyllus signatus.

Fœm. *Viridis, sat gracilis; caput fuscescente vittatum, antice albidum, carina lanceolata sulcata antennarum articulo 1o angustiore; antennæ fuscæ, basi virides; prothorax tuberculatus, margine antico rotundato, margine postico subrotundato; oviductus abdominis dimidio longior; pedes robusti, femoribus posticis fortiter spinosis; alæ anticæ subtilissime reticulatæ, costa valde rotundata, margine interiore fere recto, strigis nonnullis discoidalibus ferrugineis latis obliquis, plaga basali obscuriore; alæ posticæ diaphanæ, paullo breviores.*

Female. Green, rather slender, nearly fusiform. Head narrower than the fore border of the prothorax, with some irregular pale brown stripes; fore part whitish; keel of the vertex lanceolate, furrowed, more than half the breadth of the first joint of the antennæ; front slightly elongated between the elevated borders of the sockets of the antennæ. Eyes brown, prominent, slightly elliptical. Antennæ brown, green at the base. Prothorax tuberculate, convex, with one longitudinal and two transverse impressed lines; fore border rounded; sides nearly straight; hind border slightly rounded. Oviduct ferruginous towards the tip, more than half the length of the abdomen. Legs stout; spines of the fore femora and of the four anterior tibiæ few and very minute; middle femora and hind tibiæ with two rows of small spines; hind femora with rather large spines. Fore wings lanceolate, very minutely reticulated, a little longer than the hind wings; costa much rounded; interior border nearly straight; three rows of areolets between the costa and the scapular vein; first row limited to a few small areolets near the base; areolets of the other rows mostly irregular, some of them subdivided; some areolets between the scapular vein and the externo-medial; one row and beyond the middle two rows of areolets between the externo-medial and the interno-medial, some of their veins slightly ramose, a few broad irregular oblique ferruginous streaks in this space; a darker ferruginous basal patch; one row of quadrate areolets between the interno-medial and the anal vein, and numerous small irregular areolets along the interior border. Hind wings

pellucid; longitudinal veins pale green; transverse veins white. Length of the body 16 lines; expansion of the fore wings 54 lines.

Much like *P. breviusculus* in structure.

a. Hindostan. From Mr. Sowerby's collection.

18. Pseudophyllus lituratus.

Fœm. *Viridis, gracilis, testaceo varius; capitis carina lanceolata subsulcata, antennarum articulo 1o æquilata; antennæ fusco annulatæ; prothorax vix carinatus, marginibus antico et postico rotundatis, lateribus fere rectis; abdomen subcarinatum; oviductus abdominis dimidio longior; pedes spinulosi, sat graciles; alæ anticæ angustæ, femoribus posticis triplo longiores, nigro punctatæ, ferrugineo trimaculatæ, costa margineque interiore fere rectis; alæ posticæ diaphanæ, paullo breviores.*

Female. Green, slender, partly testaceous. Head and prothorax with a very slight raised longitudinal line. Head nearly as broad as the fore border of the prothorax; fore part shining, very oblique; keel of the vertex lanceolate, very slightly furrowed, as broad as the first joint of the antennæ; elongation of the front between the antennæ very short. Eyes tawny, prominent, short-elliptical. Antennæ with numerous brown bands. Prothorax with one distinct transverse impressed line; fore border and hind border rounded; sides nearly straight. Abdomen slightly keeled. Oviduct black towards the tip, rather more than half the length of the abdomen. Supra-anal lamina keeled. Cerci lanceolate, slender, setose. Legs rather slender; femora and middle tibiæ with few and very minute spines; hind femora hardly one-third of the length of the fore wings; fore tibiæ and hind tibiæ unarmed. Fore wings narrow, minutely reticulated; space between the costa and the scapular vein with one row of areolets, except at the base, where it is dilated and has numerous areolets; externo-medial vein connected with the scapular along the whole length; space between the externo-medial and the anal vein with the rows of areolets varying from two to five in number; one row of small areolets between the anal vein and the interior border; several clusters of black points and three ferruginous spots in the disk; costa and interior border nearly straight. Hind wings pellucid, shorter by one line than the fore wings; marginal areolets small; veins pale green; transverse veins white. Length of the body 12 lines; expansion of the fore wings 39 lines.

More slender than *P. Sinensis*, which it most resembles.

a, *b*. Ceylon. Presented by Dr. Templeton.

19. Pseudophyllus sublituratus.

Fœm. *Viridis, gracilis, testaceo varius; capitis carina lanceolata, sulcata, antennarum articulo 1o paullo angustior; prothorax tuberculatus, margine antico valde rotundato, lateribus fere rectis, margine postico rotundato; cerci graciles; oviductus abdomine brevior; pedes spinulosi, sat validi, tibiis quatuor anterioribus inermibus; alæ anticæ angustæ, nigro parce punctatæ, apice truncatæ, femoribus posticis fere triplo longiores, costa valde rotundata, margine interiore recto; alæ posticæ diaphanæ.*

Female. Green, slender, partly testaceous. Head a little narrower than the fore border of the prothorax; fore part shining, very oblique; keel of the vertex lanceolate, furrowed, a little narrower than the first joint of the antennæ; front lanceolate between the antennæ. Eyes brown, prominent, short-elliptical. Prothorax tuberculate, with two transverse impressed lines; fore border much rounded; sides nearly straight; hind border rounded. Supra-anal lamina and cerci short; the latter slender. Oviduct black towards the tip, rather shorter than the abdomen. Legs rather stout; femora and hind tibiæ with very minute spines; hind femora a little more than one-third of the length of the fore wings; four anterior tibiæ unarmed. Fore wings narrow, minutely reticulated, truncated at the tips; costa much rounded; interior border straight; some black points at intervals in the disk; two rows of areolets of various shapes between the scapular vein and the costa; scapular and externo-medial parting from each other beyond the middle, slightly undulating and including four transverse veins from thence to the tip; one row and exteriorly two rows of large areolets between the externo-medial and the interno-medial; a row of narrower areolets between the interno-medial and the anal vein, and another of small quadrate areolets between the anal and the interior border. Hind wings pellucid, narrower than the fore wings and very little more than half their length; veins pale green. Length of the body 14 lines; expansion of the fore wings 38 lines.

The hind wings of the specimen described may not have attained their full development. The areolets in the disk of the fore wings are much fewer than those of *P. lituratus.*

a. Hindostan. From Archdeacon Clerk's collection.

20. Pseudophyllus opacus.

Fœm. *Viridis, testaceo varius, gracilis; caput prothorace æquilongum, antice albidum, carina longi-conica non sulcata antennarum articulo 1o paullo angustiore; prothorax subtiliter tuberculatus, marginibus antico et postico valde rotundatis, lateribus subrotundatis; pedes robusti, femoribus uniseriatim spinulosis, tibiis inermibus; alæ anticæ angustæ, femoribus posticis triplo longiores, costa subrotundata, margine interiore recto; alæ posticæ diaphanæ, paullo breviores.*

Female. Green, partly testaceous, slender. Head as long in front as the prothorax and as broad as its fore border; keel of the vertex elongate-conical, not furrowed, a little narrower and shorter than the first joint of the antennæ; fore part whitish, shining; front rounded between the eyes, not attennated between the antennæ. Eyes tawny, prominent, nearly round. Prothorax thinly and minutely tuberculate, with a slight keel, and with a transverse impressed line which is forked on each side; fore border and hind border much rounded; sides slightly rounded. Supra-anal lamina elongate-conical. Cerci lanceolate. Subgenital lamina with two very long styles. Legs short, stout; femora with one row of very minute spines; hind femora about one-third of the length of the fore wings; tibiæ unarmed. Fore wings narrow, very minutely reticulated, longer by half a line than the hind wings; costa slightly rounded; interior border straight; three rows, two rows, or more exteriorly one row of

irregular areolets between the scapular vein and the costa; scapular and externo-medial vein united along the whole length; three rows of areolets between the externo-medial and the interno-medial, these areolets regular in the exterior part, elsewhere irregular; a row of quadrate areolets between the interno-medial and the anal vein. Hind wings pellucid; veins very pale green. Length of the body 10 lines; expansion of the fore wings 32 lines.

The more slender prothorax distinguishes it from *P. sublituratus*.

a. Ceylon. Presented by Dr. Templeton.

Australasia.

21. Pseudophyllus graniger.

graniger, *Serv. Hist. Orth.* 467—Locusta (Pseudophyllus) granigera, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 204.

a. Java. From Madame Ida Pfeiffer's collection.

22. Pseudophyllus angustatus.

Locusta angustata, *Stoll, Saut. et Grill.* 14, pl. 5, f. 17.

Java.

23. Pseudophyllus leuconotus.

leuconotus, *Serv. Hist. Orth.* 469—Locusta (Pseudophyllus) leuconota, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 204.

Java.

24. Pseudophyllus cretaceus.

cretaceus, *Serv. Hist. Orth.* 470.

Java.

25. Pseudophyllus tenebrosus.

Fœm. *Fuscus, robustus; caput antice albidum, carina angusta lanceolata sulcata; prothorax subtilissime tuberculatus, margine antico valde rotundato, margine postico angulato; oviductus nigro marginatus, abdominis dimidio valde longior; pedes crassi, femoribus tibiisque posticis fortiter spinosis; alæ anticæ latæ, pallide fuscæ, femoribus posticis triplo longiores, costa valde rotundata, margine interiore fere recto; alæ posticæ cinereæ, paullo longiores, apice fuscescentes.*

Female. Brown, stout. Head a little narrower than the fore border of the prothorax; keel of the vertex lanceolate, furrowed, about half the breadth of the first joint of the antennæ, widely separated from the conical part of the front between the antennæ; a stripe on each side of the front, clypeus and labrum whitish. Eyes round, prominent. Prothorax very finely tuberculate, with two impressed lines, one longitudinal, the other

transverse and more strongly marked; fore border much rounded; sides sloping outward from the fore border to the hind border, which forms a nearly right angle. Abdomen dingy testaceous. Oviduct very deep, much more than half the length of the abdomen, bordered with black. Legs thick; fore femora unarmed; middle femora and four anterior tibiæ with a few minute spines; hind femora and hind tibiæ with long stout spines, the former about one-third of the length of the fore wings. Fore wings broad, pale brown; costa much rounded; interior border nearly straight; principal veins dark brown; areolets mostly quadrate and very large, including small irregular areolets; three rows of areolets between the costa and the scapular vein; first row composed of small areolets near the base; second extending to one-third of the length; third with veins mostly forked; a few narrow areolets between the scapular vein and the externo-medial; three rows of areolets between the externo-medial and the interior border, the largest between the externo-medial and its branch; some small areolets between the anal vein and the interior border. Hind wings cinereous, a little longer than the fore wings; tips pale brown; veins pale testaceous. Length of the body 24 lines; expansion of the fore wings 84 lines.

The fore wings resemble those of *P. neriifolia* in structure, but are much more ample.

a. Borneo. Presented by H. Low, Esq.

26. Pseudophyllus teter.

Mas. *Cinereo-cervinus, robustus; capitis carina longi-conica, sulcata, antennarum articulo 1o æquilata; prothorax tuberculatus, margine antico subrotundato, lobis lateralibus elongatis, margine postico angulato; lamina subgenitalis attenuata stylis duobus cylindricis; pedes crassi, femoribus fortissime spinosis; alæ anticæ latæ, truncatæ, femoribus posticis triplo longiores; alæ posticæ cinereæ, adhuc longiores.*

Male. Cinereous fawn-colour, stout. Head rather narrower than the fore border of the prothorax; fore part shining; keel of the vertex elongate-conical, furrowed, as broad as the first joint of the antennæ; front lanceolate between the sockets of the antennæ. Eyes reddish brown, prominent, nearly round. Prothorax tuberculate, with an indistinct longitudinal line and two strongly marked transverse impressed lines; fore border slightly rounded; sides with a conical outline of which the fore side is tuberculate; hind border angular. Supra-anal lamina long, curved downward, with reflexed sides. Cerci lanceolate, stout. Subgenital lamina very long, lanceolate in the basal part, slender and cylindrical from thence to the styles, which are also cylindrical. Legs thick; femora and four anterior tibiæ with two rows of spines; femora with the spines along the outer side especially long and thick; hind femora about one-third of the length of the fore wings; hind tibiæ with long stout spines on two keels and with a few minute spines on the two other keels. Fore wings broad, truncated at the tips, nearly twice the length of the body; areolets between the scapular vein and the costa large, divided by mostly forked veins, each including many small irregular areolets; areolets between the scapular vein and the

externo-medial as usual; three posterior rows of large areolets; fourth and marginal row composed of transverse furrowed areolets, which are very long and narrow; tympanum large. Hind wings cinereous, longer by three lines than the fore wings; veins testaceous. Length of the body 18 lines; expansion of the fore wings 64 lines.

It is most nearly allied to *P. tenebrosus*.

a, *b*. Philippine Isles. From Mr. Cuming's collection.

27. Pseudophyllus parallelus.

Fœm. *Pallide viridis, gracilis, testaceo varius; caput antice albidum, carina lanceolata sulcata antennarum articulo 1o angustiore; prothorax subtuberculatus, margine antico rotundato, lateribus angulatis antice crenulatis, margine postico vix rotundato; lamina supra-analis elongata, apice incisa; oviductus abdominis dimidio longior; pedes robusti, spinulosi, femoribus posticis biseriatim fortiter spinosis; alæ æquilongæ; alæ anticæ angustæ, subacutæ, femoribus posticis triplo longiores, costa rotundata, margine interiore fere recto, venis longitudinalibus rectis fere parallelis, areolis quadratis; alæ posticæ diaphanæ, acutæ, striga apicali lata viridi fusco unilineata.*

Female. Pale green, slender, partly testaceous. Head a little narrower than the fore border of the prothorax; fore part whitish, shining, very oblique; keel of the vertex lanceolate, furrowed, narrower than the first joint of the antennæ; front lanceolate between the rims of the sockets of the antennæ. Eyes ferruginous, small, round, prominent. Prothorax slightly tuberculate, with a longitudinal impressed line which is only apparent in the middle, and with two well-defined transverse impressed lines; fore border rounded; sides slightly angular in the middle, tuberculate in front of the angle; hind border hardly rounded. Supra-anal lamina long, notched at the tip. Cerci lanceolate. Oviduct black at the tip, rather more than half the length of the abdomen. Legs stout; spines of the four anterior femora and tibiæ very small; hind femora with two rows of stout spines, about one-third of the length of the fore wings; hind tibiæ with spines on three of the four keels. Wings of equal length. Fore wings narrow, lanceolate, slightly acute; costa rounded; interior border almost straight; longitudinal veins straight, nearly parallel to each other; areolets between the scapular vein and the costa in three rows, two rows or one row, acoording as they are nearer to the tip; areolets between the scapular vein and the externo-medial small; three posterior rows of large regular quadrate areolets, subdivided as usual; two rows of small areolets along the interior border. Hind wings pellucid, acute; apical patch pale green, with a brown line; veins greenish white. Length of the body 18 lines; expansion of the fore wings 58 lines.

Much like *P. venosus* as regards the veins of the fore wings; the prothorax is narrower and the oviduct is shorter.

a. Java. From Mr. Argent's collection.

28. PSEUDOPHYLLUS FORTIS.

Fœm. *Testaceus, crassus; capitis carina longi-conica, subacuta, subimpressa, antennarum articulo 1o paullo angustior; prothorax subtuberculatus, postice carinatus, margine antico rotundato, lateribus crenulatis, margine postico angulato elevato; oviductus abdomine paullo longior; pedes crassi, breves, fortiter spinosi, femoribus posticis triseriatim spinosis.*

Female. Testaceous, thick. Head a little narrower than the fore border of the prothorax; keel elongate-conical, slightly acute, a little narrower than the first joint of the antennæ, its disk slightly concave; front lanceolate between the sockets of the antennæ. Eyes tawny, elliptical, prominent. Prothorax minutely and thinly tuberculate, with a keel which is distinct in the hind part, but passes in the middle into a furrow; the latter is hardly apparent in front of the foremost of the two strongly impressed transverse lines; fore border rounded; lateral lobes with tuberculated borders; hind border angular, elevated. Oviduct a little longer than the abdomen. Legs thick, short; spines large on the outer keel, small on the inner one; hind femora with an additional row of minute spines on the upper keel; hind tibiæ with two rows of very broad spines and with two of minute spines. Length of the body 15 lines.

The specimen described is not fully developed, and its fore wings are very much shorter than the abdomen.

a. Philippine Isles. From Mr. Cuming's collection.

Genus 123. ZUMALA.

Corpus crassum. Verticis carina lanceolata, sulcata, antennarum articulo 1o angustior. Oculi prominuli. Antennæ longæ, graciles. Prothorax tuberculatus; plus minusve carinatus. Oviductus abdomine brevior. Pedes robusti, spinosi. Alæ anticæ latæ, margine interiore valde rotundato.

Body stout. Keel of the vertex lanceolate, furrowed, narrower than the first joint of the antennæ. Eyes prominent. Antennæ long, slender. Prothorax tuberculate, more or less keeled. Oviduct shorter than the abdomen. Legs stout, spinose. Fore wings broad; interior border much rounded.

The rounded interior border of the hind wings is the most distinctive character of this genus. It is more nearly allied to *Aprion* than to *Pseudophyllus.*

1. ZUMALA ROBUSTA.

Fœm. *Viridis aut testacea, crassa; caput albidum, carina lanceolata subsulcata antennarum articulo 1o valde angustiore, labro albo; antennæ nigricantes, basi testacea; prothorax tuberculatus, carinatus, marginibus antico et postico rotundatis, lateribus subangulatis; oviductus abdomine paullo brevior; pedes crassi, spinulosi; alæ anticæ latiusculæ, subtilissime striatæ, femoribus posticis plus duplo longiores, costa fere recta, margine postico rotundato.*

Female. Green or testaceous, thick. Head whitish, a little narrower than the fore border of the prothorax; fore part smooth, shining; labrum white; keel of the vertex lanceolate, slightly furrowed, much shorter and narrower than the first joint of the antennæ; front lanceolate between the sockets of the antennæ. Eyes tawny, elliptical, prominent. Antennæ blackish, testaceous towards the base. Prothorax tuberculate, keeled, with two transverse impressed lines which are only apparent in the middle part; fore border and hind border rounded; sides slightly angular, their tubercles larger than those elsewhere. Fore border of the mesosternum tuberculate. Oviduct black towards the tip, a little shorter than the abdomen. Legs thick; spines obtuse, black, minute; four anterior femora and tibiæ with very few spines; hind femora about three-sevenths of the length of the fore wings, with two rows of spines; hind tibiæ with eight spines, of which six are on the outer side. Fore wings rather broad, longer than the body, longitudinally and very finely striated; fore border nearly straight; hind border rounded; space between the scapular vein and the costa with two or three rows of areolets, and towards the tip with only one row; scapular and externo-medial vein closely connected and towards the tip wholly united, the latter emitting four oblique branches from its hinder side, between which and the interior border there are numerous irregular veins; space between the anal vein and the interior border irregularly articulated. Length of the body 18 lines; expansion of the fore wings 47 lines.

a. Ceylon. Presented by Dr. Templeton.

2. Zumala exaltata.

Fœm. *Viridis aut lutescens, crassa; frons plana, aspere punctata; palporum articulus 5us clavatus, oblique truncatus; prothorax vix carinatus; abdomen carinatum; oviductus abdominis dimidio paullo longior; pedes crassi, breviusculi; alæ anticæ latissimæ, margine interiore valde rotundato; alæ posticæ diaphanæ, breves.*

Female. Green or pale luteous, thick, fusiform. Head a little narrower than the fore border of the prothorax; keel of the vertex lanceolate, slightly furrowed, much shorter than the first joint of the antennæ and not more than half its breadth; front flat, roughly punctured, lanceolate between the sockets of the antennæ. Eyes red, round, prominent. Palpi rather short; apical joint clavate; fifth joint of the maxillary obliquely truncated, more than twice the length of the fourth. Prothorax tuberculate, with an almost obsolete longitudinal keel and with two transverse strongly impressed lines which converge and are abbreviated on each side; fore border and hind border very slightly rounded; sides slightly angular. Abdomen keeled above. Oviduct black towards the tip, a little more than half the length of the abdomen. Legs thick, rather short; four anterior femora and tibiæ with two rows of minute spines beneath; middle femora and middle tibiæ with one row of rather large spines above; hind femora less than half the length of the fore wings, with two rows of stout spines beneath and with a row of larger spines above; hind tibiæ with stout spines on three of the four keels. Fore wings very broad, longer than the body, very much longer than the hind wings; costa slightly rounded; interior border very much rounded; areolets large, mostly irregular; space between the scapular vein and the costa very broad; scapular and externo-

medial vein contiguous till near the tip, where they both ramify; a fold along the anal vein, between which and the interior border the space is minutely reticulated. Hind wings pellucid; veins very pale green. Length of the body 17 lines; expansion of the fore wings 48 lines.

The more rounded interior border of the fore wings distinguish it from *Z. robusta*.

a. Ceylon. Presented by Dr. Hooker.
b. Ceylon. Presented by Dr. Templeton.

3. Zumala mutilata.

Mas. *Viridis aut testacea, robusta; frons punctata; prothorax subtiliter tuberculatus, perparum carinatus; styli laminæ subgenitalis fusiformes; pedes robusti, breviusculi, tibiis quatuor anterioribus inermibus; alæ anticæ breves, latissimæ, margine interiore valde rotundato; alæ posticæ breves.*

Male. Green or testaceous, stout, fusiform. Head a little narrower than the prothorax; keel of the vertex lanceolate, furrowed, much shorter than the first joint of the antennæ and not more than half its breadth; front punctured, lanceolate between the sockets of the antennæ. Eyes brown, small, round, prominent. Prothorax finely tuberculate, very slightly keeled, with two transverse impressed lines, which are abbreviated on each side; fore border slightly rounded in the middle; sides very slightly angular; hind border very slightly rounded. Abdomen slightly keeled above. Subgenital lamina with two fusiform styles which are curved upward. Legs stout, rather short; four anterior femora with two rows of rudimentary spines beneath; middle femora with one row of small spines above; hind femora much shorter than the fore wings, with two rows of small spines beneath and with one row of long stout spines above; four anterior tibiæ unarmed; hind tibiæ with a few very minute spines. Fore wings very broad, a little shorter than the body, with irregular and comparatively few areolets; costa slightly rounded; interior border extremely rounded, a deep fold along the anal vein; a broad space between the costa and the scapular vein, which is connected with the externo-medial till near the tip. Hind wings pellucid; veins whitish. Length of the body 9 lines; expansion of the fore wings 18 lines.

a. Ceylon. From the Rev. Mr. Wenham's collection.
b. Ceylon. From Dr. Thwaites' collection.

4. Zumala Cingalensis.

Mas. *Testaceus, robustus; caput longiusculum, carina tenui lanceolata acuta subexcavata; antennæ sat validæ; prothorax tuberculatus, subcarinatus, margine antico rotundato, lateribus rectis crenulatis, margine postico subrotundato; lamina supra-analis lata; lamina subgenitalis latissima, apicem versus valde attenuata stylis duobus biarticulatis; pedes breves, robusti, spinosuli; alæ anticæ fusco notatæ.*

Male. Testaceous, stout, fusiform. Head elongate, a little narrower than the fore border of the prothorax; keel lanceolate, acute, slightly excavated, not more than half the breadth of the first joint of the antennæ;

front lanceolate between the sockets of the antennæ. Eyes prominent, nearly round. Antennæ rather stout; first joint broad, with a small blackish knob on the fore border. Prothorax tuberculate, slightly keeled, with a slightly impressed longitudinal line, and with two abbreviated strongly marked transverse lines; fore border rounded; sides or lateral lobes straight, crenulated; hind border slightly rounded. Supra-anal lamina large, conical. Subgenital lamina very broad, cylindrical and abruptly attenuated towards the tip, with two biarticulate styles which are shorter than the attenuated part. Legs short, stout; spines of the tibiæ and of the four anterior femora rudimentary; hind femora with two rows of short stout spines. Fore wings minutely reticulated, with a few brown dots and speckles; areolets irregular. Length of the body 12 lines.

The fore wings of the specimen described appear to be not fully developed and extend very little beyond the abdomen; the hind wings are very small. The other specimen here recorded is in a yet earlier state and may be a distinct species; the prothorax is more keeled, and the hind femora are minutely serrated above.

a. Ceylon. Presented by Dr. Templeton.
b. Ceylon.

5. Zumala? oleifolia.

Locusta oleifolia? *Fabr. Enl. Syst.* ii. 35—Pseudophyllus oleifolius, *Serv. Hist. Orth.* 470—Locusta (Aprion) oleifolia, *Haan, Verz. Nat. Gesch. Ned. Ind. Bez. Ins.* 205.

Malabar.

ERRATA.

—o—

Page 272.

For 14. Xiphidium punctipenne *read* 14. Xiphidium punctipennis.

Page 335.

For 2. Phaneroptera libifolia *read* 2. Phaneroptera liliifolia.

Page 348.

For porvicauda *read* parvicauda.

Page 357.

For 1. Tricola hystrix *read* 1. Tricala hystrix.

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